

D 589

.U7 L4

LIBRARY OF CONGRESS



00005118876







HISTORY OF THE U.S.S. LEVIATHAN

CRUISER AND TRANSPORT FORCES
UNITED STATES ATLANTIC FLEET



COMPILED FROM THE SHIP'S LOG AND
DATA GATHERED BY THE HISTORY
COMMITTEE ON BOARD THE SHIP

11589
.74764



JUL 15 1919

©CLA530189



"LEVIATHAN"

(Author Unknown)

Leviathan, thou noble ship,
Thou mighty monarch of the seas,
May thy stalwart form and mighty force
War's desolating horrors ease.
We view the grandeur of thy bulk,
And gaze with wonder and with awe
At thy great magnitude and might
Which surpass visions we foresaw.

As now in peaceful anchor held,
The waves caress thy sturdy bow:
The ocean flirts and beckons thee
To sail away, away—and now
She lures thee with her shining crest,
But couldst thou see beneath the wave
The yawning jaws of cavern greed
From which a God alone can save.

She'll lure thee out into her midst,
Then tantalize with storm and gale,
But these mere trifles bring no fear
As ever on you sail.
But deep within her somber soul
There lie devices born of hate,
In traitorous hearts and crafty minds
Hell's strategies they propagate.

And will these mechanisms harm?
Will bomb or shot e'er rend thy bark?
Will cries of horrors fill the air
As dangers peer from ocean dark?
There is but One who knows thy fate;
Within the hollow of His hand
Thy safety lies. You can but wait
And place thy trust in Beulah Land.

We trust thee, ship, we give our sons
By thousands. Will they fill thy halls?
Oh bring them safe across the wave
Despite the whirlpool, storms and squalls.
The prayers and sobs from broken hearts
Will follow as thy course is run.
This prayer eternal, to heaven will rise—
"Thy will, not mine, Oh, God, be done."

Leviathan, thou ship of state,
Sail on, sail on victorious.
Crush thou the tools of hate,
Come back with honors glorious
And bring with thee eternal peace.
Peace with honor, without stain,
And wear the crown "*LEVIATHAN*,"
Queen of the ocean's vast domain.

FOREWORD

THIS is the story of the *Leviathan's* part in the Great World's War. The story of her career since the Stars and Stripes displaced the three barred flag of Germany at her taffrail constitutes one of the most remarkable and brilliant chapters in the maritime history of the world.

She was seized by the U. S. Customs officials in the early morning of April 6, 1917, turned over to the Shipping Board to be manned and operated, but after nearly three months' effort on their part without the ship leaving the dock, she was finally, on July 25, 1917, turned over to the Navy Department and regularly commissioned as a Naval vessel and assigned to transport duty under the command of Vice-Admiral Albert Gleaves, U. S. Navy, Commander of the Cruiser and Transport Force, United States Atlantic Fleet.

The *Leviathan's* record for carrying human beings across the ocean has never been approached by any other vessel in the history of the world. Back and forth she went across the Atlantic, almost with the regularity of clockwork, passing unscathed a score of times through the war zone, though the German submarines made several attempts in force to get her. Her performance constitutes one of the greatest marine achievements of the world and it would seem that fate had designed her to fulfil a mission of retributive justice.

The Germans said it could not be done, but true to their nature, they had not figured on the ingenuity, initiative and pluck of the American sailor. When the Armistice was signed this three-funnelled colossus of the waves had made ten trips across the Atlantic as a naval transport and had landed a grand total of 110,591 American soldiers in France and England. In other words, this single ship had transported to Europe one twentieth of the total number of the American Expeditionary Force.

This tremendous achievement did not depend alone upon the great size and speed of the ship; it was accomplished also by the splendid

spirit of the officers and men of the *Leviathan* and their unfailing devotion to duty. It was due to their pride in their ship and their personal loyalty to Vice-Admiral Gleaves, their Force Commander, that kept the *Leviathan* constantly straining to do her best, and this spirit remained with the ship after the Armistice and nowhere is it better illustrated than in the records of the 15th and 16th trips, on which she returned to the United States a total of 28,412 troops, which amounted to 2,217 more than were carried on her two best previous voyages. These two trips were made in the fastest time she had ever made, less than 37 days elapsing for the two voyages.

Thus during the war, in rushing troops to France, and after the Armistice in the great task of bringing them home again, the *Leviathan* proved herself of greatest value to the government and her great achievement will forever remain an undying credit to the United States Navy, and the men of the Navy who manned her.



SECRETARY DANIELS AND MRS. DANIELS ON BOARD THE U. S. S. "LEVIATHAN"

DEDICATION TO
SECRETARY DANIELS

*To our leader—honored in the nation;
To our friend—steadfast and true;
To our shipmate—of happy memory;*

*The Bluejackets offer this dedication in gratitude
and appreciation.*

PREFACE BY SECRETARY DANIELS

THE record of the *U. S. S. Leviathan*, queen of the troop transport fleet which made possible the successful participation of the United States in the war with Germany, is a record of consistent service and remarkable efficiency which upholds the best and noblest traditions of the United States naval service. The nation owes and gladly gives a great meed of praise to every officer and man, regular and reserve alike, who shared in the hardships, the dangers and the successes of the *Leviathan's* great wartime service.

The potential strength of the 98,000 fighting men the *Leviathan* carried to the shores of France can never be estimated. We know that when the night was blackest, when the fortunes of the world hung in the balance and the eyes of all nations were turned toward the western continent, that the great *Leviathan* with her tremendous troop-carrying capacity was ready and that, trip after trip, without failures or accidents, the great transport plowed her way across the Atlantic, scornful alike of the submarine's stilettos of the sea and the wrath of the elements, carrying to the shores of our nearly exhausted allies those inestimably precious cargoes of men who turned the tide and saved the day.

Although the *Leviathan* did not participate in any great naval engagement, although the battle flags never flew proudly at her mastheads as she swept into the tempest of a modern naval engagement, her achievement in carrying across the sea more than three divisions of American soldiers entitles the gallant ship's name to a place forever in the hall of American naval fame.

I cannot but feel a thrill of admiration for the efficiency, loyalty and devotion to duty of the officers and men of the *Leviathan* who repaired the damage wrought by the Germans, quickly and skillfully organized the ship for service at sea and who, week after week and month after month, "carried on" regardless of the lurking menace beneath the waves, in the face of an enemy who would have made any sacrifice to add the giant *Leviathan* to his list of victims.

On March 15, 1919, Mrs. Daniels and myself had the pleasure of going aboard the *Leviathan* with a party of naval officers who were accompanying me to Europe on important public business. The remembrance of this voyage will ever be among the most cherished memories of all the members of our party. The never-failing courtesy and kindness of both officers and men, the thoughtful consideration with which we were treated, will always cause us to remember the *U. S. S. Leviathan* with the warmest personal regard.

With all good wishes for the future for the crew of the *Leviathan* and the hope that the ship's great work, so wonderfully carried out thus far, may be as successfully completed.

Joseph Daniels



ADMIRAL GLEAVES AND STAFF

Roster of Officers

Cruiser and Transport Force United States Atlantic Fleet

Vice-Admiral ALBERT GLEAVES, United States Navy
Commander Cruiser and Transport Force,
U. S. Atlantic Fleet

U. S. S. Leviathan

CAPTAINS

Oman, Joseph W., Capt., U.S.N.
Bryan, Henry F., Capt., U.S.N.
Phelps, William W., Capt., U.S.N.
Durell, Edward H., Capt., U.S.N.

EXECUTIVE OFFICERS

Jeffers, William N., Comdr., U.S.N.
Blackburn, John H., Comdr., U.S.N.
Staton, Adolphus, Comdr., U.S.N.

NAVIGATORS

Mannock, Frank D., Lieut.-Comdr., U.S.N.
Cunningham, Harold A., Lieut.-Comdr., U.S.N.R.F.

GUNNERY OFFICERS

Osborne, Charles F., Lieut.-Comdr., U.S.N.
Boucher, Creed H., Lieut., U.S.N.
Bateman, Arnold H., Lieut., U.S.N.

NOTE: Captain J. W. Oman, U.S.N., assumed command on July 23, 1917, being relieved by Captain Henry F. Bryan, U.S.N., on March 3, 1918, who in turn was relieved by Captain W. W. Phelps, U.S.N., on Sept. 21, 1918, who in turn was relieved by Captain Edward H. Durell, U.S.N., on April 4, 1919, and who now is in command.

Roster of Officers—Continued

FIRST LIEUTENANTS

Ford, James W., Lieut.-Comdr., U.S.N.
Haltnorth, William E., Lieut., U.S.N.
Malloy, William E., Lieut., U.S.N.

SENIOR ENGINEER OFFICER

Woodward, Vaughn V., Comdr., U.S.N.

COMMUNICATION OFFICERS

Gahagen, Allen J., Lieut., (j. g.), U.S.N.
Bense, Frederick, Lieut., (j. g.), U.S.N.
Katzmarek, John E., Ensign, U.S.N.R.F.

SENIOR MEDICAL OFFICERS

Snyder, John J., Comdr., (M. C.), U.S.N.
Asserson, Frederick A., Comdr., (M. C.), U.S.N.
May, Henry A., Lieut.-Comdr., (M. C.), U.S.N.
Vaughn, George T., Lieut.-Comdr., (M. C.), U.S.N.

SENIOR SUPPLY OFFICERS

Schafer, George C., Lieut.-Comdr., (P. C.), U.S.N.
Simonpietri, William L. F., Lieut.-Comdr., (P. C.), U.S.N.
Farwell, Neal B., Lieut.-Comdr., (P. C.), U.S.N.
Edwards, Eaton C., Lieut.-Comdr., (P. C.), U.S.N.

WATCH AND DIVISION OFFICERS

Jones, John, Lieut.-Comdr., U.S.N.R.F.
Foster, John, Lieut.-Comdr., U.S.N.R.F.
Beebe, John L., Lieut., U.S.N.R.F.
Hankison, Otto L., Lieut., U.S.N.R.F.
Willey, James H., Lieut., U.S.N.R.F.
Davidson, Harold, Lieut., U.S.N.R.F.
Burtis, William H., Lieut., U.S.N.
Dorsey, Arthur B., Lieut., U.S.N.
Swift, John T., Lieut., U.S.N.
Hemby, Cleveland, Lieut., U.S.N.R.F.
Jones, Edward E., Lieut., U.S.N.R.F.
Leonard, Arthur T., Lieut., U.S.N.



CAPT. H. F. BRYAN



CAPT. W. W. PHELPS



CAPT. J. W. OMAN



CAPT. E. H. DURELL

Roster of Officers—Continued

Skead, Robert G., Lieut., U.S.N.R.F.
 Lovell, Douglas G., Lieut., U.S.N.
 Wright, F. G., Lieut., U.S.N.R.F.
 Millard-Turner, R., Lieut., (j. g.), U.S.N.R.F.
 Wainwright, Stuyvesant, Lieut., (j. g.), U.S.N.R.F.
 Hilliard, Charles C., Lieut., (j. g.), U.S.N.R.F.
 Harper, Fred K., Lieut., (j. g.), U.S.N.R.F.
 Wyatt, Thomas H., Lieut., (j. g.), U.S.N.R.F.
 Alexander, Albert E., Lieut., (j. g.), U.S.N.R.F.
 Harding, Arthur E., Lieut., (j. g.), U.S.N.R.F.
 Foss, Albion F., Lieut., (j. g.), U.S.N.R.F.
 Towes, George V., Lieut., (j. g.), U.S.N.R.F.
 Cummins, David E., Lieut., (j. g.), U.S.N.
 Whitney, Rintoul T., Lieut., (j. g.), U.S.N.R.F.
 Nordstrom, Isador, Lieut., (j. g.), U.S.N.
 Esty, Edward, Lieut., (j. g.), U.S.N.
 Morrill, Stanley, Lieut., (j. g.), U.S.N.R.F.
 Grant, Deloss A., Lieut., (j. g.), U.S.N.R.F.
 Nichols, Spencer V., Ensign, U.S.N.R.F.
 Fagan, George, Ensign, U.S.N.R.F.
 Fales, De Coursey, Ensign, U.S.N.R.F.
 Evans, John Clement, Ensign, U.S.N.R.F.
 Ditmars, John R., Ensign, U.S.N.R.F.
 Knight, Rufus H., Ensign, U.S.N.R.F.
 LeClerq, Frederick D. K., Ensign, U.S.N.R.F.
 Palin, Milburn R., Ensign, U.S.N.R.F.
 Mann, Harry A., Ensign, U.S.N.R.F.
 Allen, William S., Ensign, U.S.N.R.F.
 Barcus, James S., Ensign, U.S.N.R.F.
 Thompson, Edward H., Ensign, U.S.N.R.F.
 Rapkin, Alfred C., Ensign, U.S.N.R.F.
 Seaman, Elbert C., Ensign, U.S.N.R.F.
 Howe, Paul F., Ensign, U.S.N.R.F.
 Ferguson, John, Ensign, U.S.N.R.F.
 Meagher, John F., Ensign, U.S.N.R.F.
 Singleton, Louis P., Ensign, U.S.N.R.F.
 Leiper, John A., Ensign, U.S.N.R.F.
 Gaynor, Thomas A., Ensign, U.S.N.R.F.
 Gay, Nelson, Ensign, U.S.N.R.F.
 Froehlich, Sylvan L., Ensign, U.S.N.R.F.
 Vars, Addison F., Ensign, U.S.N.R.F.
 Armiger, William J., Ensign, U.S.N.R.F.
 Milan, Daniel F., Ensign, U.S.N.R.F.

COMMANDER
J. H. BLACKBURN



COMMANDER
A. STATON



GEO. T. VAUGHAN, U.C.
LT. CMDR, RESERVE FORCE, U.S.N



JOHN J. SNYDER
CMDR, MEDICAL CORPS, U.S.N.

Roster of Officers—Continued

Lequin, Maurice L., Ensign, U.S.N.R.F.
 Deacon, Joseph G., Ensign, U.S.N.R.F.
 Haines, Rowland B., Ensign, U.S.N.
 Hammond, Carlton M., Ensign, U.S.N.
 Johnston, George O., Ensign, U.S.N.R.F.
 Arnold, Leslie J., Ensign, U.S.N.
 Schildhauer, Clarence H., Ensign, U.S.N.
 Schoeffel, M. F., Ensign, U.S.N.
 Sherlock, Archibald J., Ensign, U.S.N.
 Rowedder, Herbert B., Ensign, U.S.N.
 Hackett, Paul B., Ensign, U.S.N.
 Fitzsimmons, George R., Ensign, U.S.N.
 Ewbank, Henry L., Ensign, U.S.N.
 Denison, Ross E., Ensign, U.S.N.
 Croasdale, Ernest S., Ensign, U.S.N.
 Cox, Christopher C., Ensign, U.S.N.
 Carlon, Charles B., Ensign, U.S.N.
 Beardsley, Ralph A., Ensign, U.S.N.

ENGINEERING OFFICERS

Woodward, Vaughn V., Comdr., U.S.N.
 Watson, James P., Lieut., U.S.N.R.F.
 Krez, Conrad A., Lieut., U.S.N.
 Jones, Richard H., Lieut., U.S.N.
 Keating, Thomas E., Lieut., U.S.N.R.F.
 Schluter, Wilhelm H. F., Lieut., U.S.N.
 Edwards, Henry I., Lieut., U.S.N.
 Lau, Walter, Lieut., U.S.N.
 Parker, John C., Lieut., U.S.N.
 Miller, L. Dee, Lieut., U.S.N.R.F.
 Watt, Frank S., Lieut., U.S.N.R.F.
 Keeser, George, Lieut., U.S.N.
 Kirk, Colin, Lieut., U.S.N.R.F.
 Althiser, Edwin, Lieut., (j. g.), U.S.N.R.F.
 Looney, William C., Lieut., (j. g.), U.S.N.R.F.
 Andrews, Ellwood W., Lieut., (j. g.), U.S.N.
 Bright, Roscoe C., Lieut., (j. g.), U.S.N.
 Cadmus, Charles E., Ensign, U.S.N.R.F.
 Leventhal, Lewis F., Ensign, U.S.N.
 Graeff, Warren L., Ensign, U.S.N.
 Ferry, Jr., John M., Ensign, U.S.N.
 Hannon, Frank, Machinist, U.S.N.



LT. A. W. MINUSE
CONST. CORPS, U.S.N.



LT. W. E. MALLOY



LT. H. B. JUDKINS, (J.G.)
ASST. PAYMASTER, N.R.F.



LT. F. S. WATT.

Roster of Officers—Continued

Dundon, William A., Machinist, U.S.N.R.F.
 Wilson, Tom C., Machinist, U.S.N.
 Brockie, William J., Machinist, U.S.N.
 Fagan, John J., Machinist, U.S.N.
 Glaser, Alfred W., Machinist, U.S.N.R.F.
 Hagerman, Oliver S., Machinist, U.S.N.R.F.
 Jensen, Joseph, Machinist, U.S.N.R.F.
 Wilson, Arthur L., Machinist, U.S.N.R.F.

MEDICAL OFFICERS

Halsey, William H., Lieut.-Comdr, U.S.N.
 Porter, John E., Lieut., U.S.N.
 Hudson, Erastus M., Lieut., U.S.N.
 Braff, Max M., Lieut., U.S.N.
 Carroll, Frank J., Lieut., U.S.N.
 Rathbun, Walter L., Lieut., U.S.N.R.F.
 Crofutt, Edward F., Lieut., U.S.N.R.F.
 Hulbert, Harold S., Lieut., U.S.N.
 Dunlap, Albert K., Lieut., U.S.N.
 Howell, Harry M., Lieut., U.S.N.
 Kennedy, Patrick F., Lieut., U.S.N.
 Lorentz, Jr., Robert, Lieut., U.S.N.
 Weston, Albert T., Lieut., U.S.N.R.F.
 Strauss, Spencer G., Lieut., U.S.N.
 Ziesel, Carl S., Lieut., (j. g.), U.S.N.
 Sheppard, Thomas T., Lieut., (j. g.), U.S.N.R.F.
 Campbell, Carl I., Chief Phar., U.S.N.
 Martin, Robert, Phar., U.S.N.
 Benton, William M., Phar., U.S.N.
 Redman, Foster B., Phar., U.S.N.

SUPPLY OFFICERS

Hoffman, Leonard G., Lieut., (P. C.), U.S.N.
 Erickson, Edward B., Lieut., (P. C.), U.S.N.
 Nuber, Horace D., Lieut., (P. C.), U.S.N.
 Barker, Edwin F., Lieut., (P. C.), U.S.N.
 Soars, Charles A., Lieut., (P. C.), U.S.N.
 Gunnell, Vaughn J., Lieut., (P. C.), U.S.N.
 Alexander, Edward J., Lieut., (P. C.), U.S.N.
 Judkins, Holland B., Lieut., (j. g.), (P. C.), U.S.N.R.F.

Roster of Officers—Continued

Carter, William J., Lieut., (j. g.), (P. C.), U.S.N.
 Coulbourn, Theodore S., Lieut., (j. g.), (P. C.), U.S.N.
 Baker, Jr., James M., Lieut., (j. g.), (P. C.), U.S.N.R.F.
 Bishop, Stuart A., Lieut., (j. g.), U.S.N.R.F.
 Foster, Leroy B., Lieut., (j. g.), (P. C.), U.S.N.
 Thomas, Wilmer J., Ensign, (P. C.), U.S.N.R.F.
 Shuler, John W., Ensign, (P. C.), U.S.N.R.F.
 O'Shaughnessy, Louis B., Ensign, (P. C.), U.S.N.R.F.
 Barber, Jr., William A., Ensign, (P. C.), U.S.N.R.F.
 Ast, Raymond J., Ensign, (P. C.), U.S.N.R.F.
 Amberg, Edward J., Ensign, (P. C.), U.S.N.R.F.
 Harris, Lester L., Ensign, (P. C.), U.S.N.R.F.
 Billingsley, Joe K., Ensign, (P. C.), U.S.N.R.F.
 Miller, Charles H., Ensign, (P. C.), U.S.N.R.F.
 Stephans, Frederick J., Ensign, (P. C.), U.S.N.R.F.
 Wrigley, Edmund J., Ensign, (P. C.), U.S.N.R.F.
 Waters, Clifford W., Ensign, (P. C.), U.S.N.
 Roberts, Jr., Jack B., Ensign, (P. C.), U.S.N.R.F.
 Schad, Theodore S., Ensign, (P. C.), U.S.N.R.F.
 Fisk, Harvey E., Ensign, (P. C.), U.S.N.R.F.
 Fenstemaker, Marvin C., Ensign, (P. C.), U.S.N.R.F.
 Ingram, Herbert R., Ensign, (P. C.), U.S.N.R.F.
 Stafford, Archibald A., Ensign, (P. C.), U.S.N.R.F.
 Smith, Walter E., Pay Clerk, U.S.N.R.F.
 Poggi, Godfrey F., Pay Clerk, U.S.N.R.F.
 Luskin, Abraham, Pay Clerk, U.S.N.R.F.

CHAPLAIN

McDonald, Eugene E., Capt., U.S.N.

SPECIAL DUTY

Minuse, A. W., Lieut. Const. Corps.
 Jack, John H., Ass't Naval Const. Lieut.

WARRANT OFFICERS

Smith, Charles W., Boatswain, U.S.N.R.F.
 Coghlan, Daniel, Boatswain, U.S.N.R.F.
 O'Donnell, Joseph A., Elec. Gunner, U.S.N.R.F.
 Heinz, Earnest D., Elec. Gunner, U.S.N.
 Rector, Frank L., Boatswain, U.S.N.
 Cole, Raymond, Gunner, U.S.N.

Roster of Officers - Continued

Hudgins, Earle P., Carpenter, U.S.N.
Britt, Benjamin B., Carpenter, U.S.N.
Waterston, Fred C., Boatswain, U.S.N.
Johnston, William, Boatswain, U.S.N.
Williams, James F., Gunner, U.S.N.
Bruns, Harry, Gunner, U.S.N.
Bergman, Milton, Elec. Gunner, U.S.N.
Braunwarth, Albert, Boatswain, U.S.N.R.F.
Banks, Earl F., Carpenter, U.S.N.R.F.
Maune, James J. Carpenter, U.S.N.
McLeod, Daniel, Carpenter, U.S.N.
Shannon, Charles R., Elec. Gunner, U.S.N.R.F.
Reimann, Carl, Gunner, U.S.N.
Ohmer, August, Carpenter, U.S.N.



SECRETARY OF WAR BAKER AND WELFARE SECRETARIES A. R. C., K. of C.,
Y. M. C. A., J. W. B., A. U. A.



PAY CLERK G.F. FOGGI



CHIEF PHARMACIST
C.I. CAMPBELL



LT. E.E. JONES



PAY CLERK
G.W. WATERS



PILOT
W.S. McLAUGHLIN



LT. D.A. GRANT



LT. STANLEY MORRILL



SHIP'S HISTORY COMMITTEE

T H E U. S. S. L E V I A T H A N

SHIP'S HISTORY COMMITTEE

Medical Department

Juhnke, Walter A.C.P.M.
Maloney, Leo G.P.M., 1c

Engineering Department

Gish, G. B.C.Y.
Lusk, J. R.MM., 1c

Navigation Department

Mallay, JulesBugler
Herrman, SidneyQ.M., 2c

Gunnery Department

Collup, Floyd I.C.G.M.
Martin, WesleyG.M. 3c
Armstrong, G. A.C.E.R.

Deck Department

Devers, D. F.B.M., 1c

Supply Department

Flowers, Frank L.C.C.S.
Nelson, JamesY., 1c

Construction Department

Hankison, L. A.C.C.M.
Sherrill, H. C.C.M., 1c

Yeoman to Committee

Fitzgerald, J. J.Y., 1c
Prescott, John W.Sea.

Chaplain E. E. McDonald.....U.S.N.

Photos by

Ensign Herbert A. Rowedder, U.S.N.



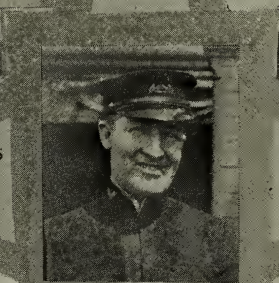
HERBERT B. ROWEDDER
ENSIGN, U.S.N.
SE. WATCH OFFICER



GUNNER H. BURNS



MACHINIST W.A. DUNDON



BOATSWAIN FRED C. WATTERSON



BOATSWAIN W. JOHNSON

CARPENTER
E. P. HUDCINS

Executive Order

Whereas, the following Joint Resolution adopted by Congress was approved by the President May 12, 1917:

“Joint Resolution Authorizing the President to take over for the United States the possession and title of any vessel within its jurisdiction, which at the time of coming therein was owned in whole or in part by any corporation, citizen, or subject of any nation with which the United States may be at war, or was under register of any nation and for other purposes.”

RESOLVED, by the Senate and House of Representatives of the United States of America in Congress assembled: That the President be, and he is hereby, authorized to take over to the United States the immediate possession and title of any vessel within the jurisdiction thereof, including the Canal Zone, and all territories and insular possessions of the United States, except the American Virgin Islands, which at the time of coming into such jurisdiction was owned in whole or in part by any corporation, citizen, or subject of any nation with which the United States may be at war when such vessel shall be taken, or was flying the flag of or was under register of any such nation or any political subdivision or municipality thereof; and, through the United States Shipping Board, or any department or agency of the Government, to operate, lease, charter, and equip such vessel in any service of the United States, or in any commerce, foreign or coastwise.

Sec. 2. That the Secretary of the Navy be, and he is hereby, authorized and directed to appoint, subject to the approval of the President, a board of survey, whose duty it shall be to ascertain the actual value of the vessel, its equipment, appurtenances and all property contained therein, at the time of its taking, and to make a written report of their findings to the Secretary of the Navy, who shall preserve such report with the records of his department. These findings shall be considered as competent evidence in all proceedings on any claim for compensation.

And whereas, the following vessels were, at the time of coming into the jurisdiction of the United States, owned in whole or in part by a corporation, citizen or subject of the Empire of Germany, a nation with which the United States is now at war, or were flying the flag of or under the register of the Empire of Germany, or of a political subdivision or municipality thereof:

T H E U. S. S. L E V I A T H A N

Vaterland
Amerika
Kaiser Wilhelm II
President Grant
Pennsylvania
Rhaetia
Wittekind
Armenia
Adamsturm
Willehad
Serapis
Allemannia
Nassovia
Maia
Neptun
O. J. D. Ahlers
Prinz Waldemar
Loongmoon
Gouverneur Jaeschke
Darvel
Princess Alice
Wiegand
Bochum
Carl Diedrichsen
Coblenz
Esslingen
Lyeemoon
Pongtong
Sachsen
Suevia
Steinbeck
Elsass
Indra
Arnoldus Vinnen
Ottawa
Grunewald
Sachsenwald
Staatssekretar Solj
Aroa (Lighter)
George Washington
Kronprinzessin Cecile
President Lincoln
Cincinnati

Bulgaria
Prinzess Irene
Hamburg
Neckar
Bohemia
Grosser Kurfurst
Barbarossa
Friedrich der Grosse
Rhein
Konig Wilhelm II
Köln
Prinz Oskar
Ockenfels
Arcadia
Pisa
Prinz Joachim
Harburg
Portonia
Clara Mennig
Pommern
Setos
Holsatia
Staatssekretar Kraetke
Borneo
Marudu
Tsintau
Andalusia
Camilla Rickmers
Clara Jebsen
Elmschorm
Johanne
Mark
Rajah
Sambia
Tubingen
Dalbek
Magdeburg
Matador
Kurt
Andromeda
Prinz Sigismund
Savoia
Arni (Lighter)
Argus (Lighter)

T H E U. S. S. L E V I A T H A N

IT IS, THEREFORE, ordered that through the United States Shipping Board there be taken over to the United States the possession and title of the aforementioned vessels. The United States Shipping Board is further hereby authorized to repair, equip and man the said vessels; to operate, lease or charter the same in any service of the United States, or in any commerce, foreign or coastwise; and to do and perform any and all things that may be necessary to accomplish the purposes of the Joint Resolution above set forth.

WOODROW WILSON.

The White House,
June 30, 1917.
(No. 2651)

Copy of Order

UNITED STATES SHIPPING BOARD

Washington, D. C., July 11, 1917.

Mr. Anthony V. Lynch,
New York, N. Y.

Sir: The President has issued an Executive Order authorizing the United States Shipping Board, on behalf of the United States, to take possession and title to the *Vaterland*, now lying or shortly to arrive at Hoboken, New Jersey, and you are hereby authorized and appointed by the United States Shipping Board as its agent to take possession of said vessel as contemplated in said Executive Order. Proceed aboard of said vessel at once and take possession of her in the name of the United States Shipping Board for and on behalf of the United States of America, affixing this Order on some conspicuous part of the ship, and leaving a true copy in its place when the original is removed. You are instructed thereupon to make Return, under oath, upon this Original Order of your action in the premises.

Very truly yours,

UNITED STATES SHIPPING BOARD,

(Signed) JOHN A. DONALD,
Commissioner.

To the United States Shipping Board:

I hereby certify that I have complied with the instruction contained in the foregoing Order.

(Signed) ANTHONY V. LYNCH.

July 14th, 1917.

Part I

The United States Takes Over the German Merchant Ship, "Vaterland"

REPAIRING THE "VATERLAND"

ORGANIZATION AND TRIAL TRIP

When the *Vaterland* of the Hamburg-American Line was taken over by the United States Navy it was found to be in urgent need of repairs throughout and the work of fitting the ship out for service as a Navy Transport was accomplished by civilian labor and the ship's force. The force at that time consisted of men of the Regular Navy and the United States Naval Reserve Force. These men worked long and faithfully to accomplish a task which the Germans claimed could not be done.

One of the hardest propositions that was accomplished aboard the ship was the repairing and the tracing up of the plumbing of the ship, *i.e.*, the fresh water and salt water lines. The plans of this plumbing could not be found and had evidently been destroyed by the German crew. In a great many instances it was found that lead fresh water lines had been cut and the ends squeezed together. In other instances entire sections of lines were cut out altogether and from investigation it looked as if this was done maliciously when it was rumored that these vessels were to be seized by the United States Government. These pipe lines are all installed behind the panelling of the ship and when the water was first turned on numerous floods were caused throughout the ship. An amusing incident occurred on the trial trip to Guantanamo

Bay, Cuba, when the entire forward section of the ship's officers' rooms on the starboard side was flooded with about fourteen inches of water.

The work of refitting deck gear and getting in shape lifeboat equipment was accomplished entirely by the ship's force and when the ship was finally ready for oversea service she carried more lifeboats than any other ship afloat. The outboard lifeboats, except in a few cases, are fitted with the Welin gear. This gear is electrically operated and when a boat is sent out over the ship's sides it can be dropped from the highest deck, *i. e.*, "A" deck, to the water with safety within sixty seconds. There is life equipment aboard, consisting of lifeboats and the latest type of life rafts for over 17,000 persons, so that a landsman sailing on board the *Leviathan* is well provided for and need not worry.

The *Leviathan* is without doubt the most wonderfully constructed vessel below the water-line in the world. The ship is subdivided into fourteen water-tight compartments and every precaution was taken from the time the ship sailed from the Port of Embarkation until her return, to safeguard the vessel. The officers and men were untiring in their efforts. During a period of ten months and twenty-six days, this vessel carried over 100,000 persons, a total of approximately one-twentieth of the entire American Expeditionary Forces which were landed overseas. Four or five thousand additional troops could have been carried on board, but for the health and comfort and safety of all concerned, this additional number were not transported.

The *Leviathan* is the only vessel in the American Transport Service which can sustain a speed of twenty knots across the Atlantic regardless of weather conditions. A vessel, one of the Navy Transports, claims that she beat the *Leviathan* by three hours in a homeward bound voyage, but the *Leviathan* steamed 100 more miles in return than this other ship and also had to slow down when within fourteen hours of New York on account of the height of the tide, as she can only go through the Ambrose Channel, the entrance to New York, at high tide.

The *Leviathan* made a round trip in sixteen days and eighteen hours; this included a stop of forty-eight hours overseas to coal ship. At that time she took on board over 1,500 tons of fresh water and 4,500 tons of coal. This coal was placed alongside in lighters and was discharged by a working force of Army stevedores on the starboard side and the ship's company on the port side. In addition to this the cargo was handled and discharged by the ship's force, this being a creditable record. The commanding officer, officers and crew received a telegram of commendation from Vice-Admiral H. B. Wilson and Admiral Sims.

According to a New York newspaper the credit was given to an Army Quartermaster officer. This officer had nothing to do with the handling of the cargo, the coaling of the vessel, or debarkation of troops, except to supply a working party of stevedores to assist the ship's force in coaling. The coaling of this vessel by the ship's force, when from 4,500 to 5,000 tons of coal are taken on, is a large task, the largest coaling proposition ever accomplished by a Navy crew, as our largest battleships only carry about 2,800 tons of coal and they coal from colliers which are fitted with modern machinery for handling coal cargoes.

Too much credit cannot be given to the crew of the *Leviathan*. They worked faithfully, earnestly and cheerfully. The men were all young, the probable average age being not more than twenty years. They were clean cut Americans, well behaved and willing and anxious to carry out orders and to whip the Germans.

SEIZURE OF THE "VATERLAND" BY THE UNITED STATES

When the World War broke out the *Vaterland*, Germany's largest passenger ship, was at her pier in Hoboken, New Jersey, ready to sail August 1, 1914. A mass meeting was held on this date at Atlantic Garden, Hoboken, by firemen, seamen, oilers and machinists of German ships in Hoboken, to discuss the war. All German ships that were in Hoboken had been

ordered not to sail. Being a part of the German Naval Reserve they were subject to the orders of the German Admiralty. The *Vaterland* had booked 720 first class, 420 second class and 2,500 third class and steerage passengers. The Hamburg-American Line lost more than \$500,000 as a result of keeping the *Vaterland* from sailing on August 1st.

The piers were stormed by angry crowds that had expected to sail and had purchased their tickets. The Hoboken police had much difficulty in handling the disappointed crowds. An extra guard was placed around the ship and at night searchlights and inspectors guarded the giant ship.

Ten thousand German reservists on August 6th, demanded of the German consul that they be sent back to Germany on the *Vaterland* so that they could join their regiments. There were nine German ships in Hoboken at this time—the *Prinzess Irene*, *Friedrich der Grosse*, *Vaterland*, *President Lincoln*, *Pennsylvania*, *Barbarossa*, *Prince Joachim*, *George Washington* and *Martha Washington*.

Count Von Bernstorff, the German Ambassador, arrived in Hoboken from Germany on the *S. S. Noordam*, on August 24th, for a brief visit.

The clearing ship for all German officers in this country was the *Aeolus*. These officers came from all parts of the world. They had secret orders to go aboard that particular ship and stay until all arrangements were made for them to travel aboard outbound steamers. These officers played an important part in the interest and welfare of the Fatherland. This continued until the United States entered the war, when all German ships on this side were seized. The captain of the *Aeolus*, the chief engineer and the purser were ordered to Philadelphia to take ship to Germany. They ran the English blockade and succeeded in getting home. This captain was given command of a Zeppelin. He made a few successful raids, but was afterwards brought down and killed near London. When news of his death came all the flags on German ships were hoisted at half mast.

On board the *Friedrich der Grosse* (renamed *Huron*), the entire personnel were kept busy making bombs. These bombs were carried off the ship in separate parts and assembled at the main factory in Hoboken, which was disguised as a fertilizer plant. This was soon broken up, the men tried and sent to jail.

The officers and men interned had many schemes for making money. A bazaar held at Madison Square Garden, New York, cleared at least \$85,000 in a week. Moonlight excursion trips up the Hudson netted more money. This money was supposed to be for the wives, mothers and children of the men, but through the craftiness of a high functionary it was used for his own personal benefit and the upkeep of the German spy system. It was found that he used some of this money also for private speculation.

When news of the sinking of the *Lusitania* came the German sailors celebrated and German officials made ready to destroy German ships in port at a moment's notice, for they knew that war with the United States was imminent. But on the morning of April 1st, the Germans were surprised to see one of our destroyers, No. 533, anchored off Pier 2. They thought this a great joke, but on April 5th, the United States officials rounded up German officers and men and sent them to Ellis Island for distribution to Federal prisons.

On this date, United States armed forces seized ninety-one German ships in different ports. The *Vaterland* was taken over at 4 A. M., on the morning of April 5th. The seizure was made without any trouble or disturbance by the crew and they were marched off and sent to Ellis Island for transfer to Fort Oglethorpe, Ga. The night before the seizure took place, a conference was held on the *Vaterland* between three representatives of the American Government and the German commanders of the interned vessels. The German commanders were given to understand that there must not be any violence when the ships were taken over. They made no resistance.

The English Navy maintained a steady and vigilant patrol outside the three-mile limit of America.

DESCRIPTION OF THE VATERLAND AND GENERAL DATA

The *Vaterland* was built at Cuxhaven, Germany, by Blohm and Voss, shipbuilders, of Hamburg, assisted by German naval architects and German army engineers. It was launched in the early part of 1914.

The ship is equipped with 46 Yarrow boilers, German built, and are arranged in four firerooms separated by four watertight bulkheads. 8,731 tons of coal are carried and an average of 700 tons at $17\frac{1}{2}$ knots up to 900 tons at $21\frac{1}{2}$ knots, is burned during twenty-four hours. 5,670 tons of fresh water are carried. This allowed every man aboard, including troops carried later and crew, six gallons per day. Cooking, drinking and water for washing is included in these figures. The ship is divided into fourteen watertight compartments and all doors in the engine room spaces are controlled by compressed air and may be closed from the bridge by a master lever in case of accident or emergency.

The following list of dimensions may also be of interest: The bridge is 87 feet above the water-line. The boat deck is 101 feet above the keel. From the top of the smokestacks to the water-line is 146 feet. Fore and aft diameter of funnels is 29 feet. Athwartships diameter of funnels is 18 feet.

A crew of 1,400 was carried by the Germans and a crew of 2,240 was carried when operated by the United States Navy. This included gun's crews, additional men for coaling at Brest, and a training complement. The ship is driven by four propellers. The shafts to which these propellers are attached are twenty-one inches in diameter. The propellers have four blades and are without a doubt the largest in existence, being fourteen feet from tip to tip. The shafts are driven by eight Parsons turbines, four in a cruising combination and four in a manœuvering combination.

The ship is equipped with five passenger and six freight elevators, each capable of lifting more than a ton.

T H E U. S. S. L E V I A T H A N

The rudder and steering gear are the largest known and the rudder and steering engine are the largest and most powerful installed on any vessel afloat.

Concerning the ground tackle, the data is:

Stem anchor	24,000 lbs.;	chain...150 fathoms
Starboard, lower	22,000 "	" ...150 fathoms
Port, lower	22,000 "	" ...165 fathoms
Spare	22,000 "	
Stock or stream anchor..	7,000 "	

The ship is equipped with a 36,000 candle power searchlight and when lighted at night may be seen for a distance of forty miles.

A GERMAN ACCOUNT OF THE SEIZURE

The following is a translation of a clipping from a German newspaper, the *Tageblatt* of Wurtemberg, taken from a dead German soldier, by a first-class private of Headquarters Troop, 27th Division, A. E. F.:

It was translated and loaned by him to the ship's history committee while en route from France to the United States on board the *Leviathan*.

The soldier while serving as an interpreter and doing intelligence work with the headquarters came upon this clipping in a queer manner on or about August 31, 1918, immediately after Kemmel Hill had been evacuated by the Germans. The lines had formerly been held by the British and had been stationary for about four months until the Twenty-seventh and Thirtieth American divisions were given that sector. After being in the line a short while the Germans evacuated, fearing that the Americans might attack and his Imperial Majesty's Army had no wish to meet up with some of Uncle Sam's fire-eaters. While going over the field after the Germans had left, this man came upon a German soldier who had been shot in the head. He evidently had been dead for some weeks. Being a part of his work and duty, he took from the pocket of the dead

Wie man aus „Waterland“ den „Leviathan“ machte.

Als die Amerikaner am 6. April 1917, am Tage der Kriegserklärung, den Dampfer „Waterland“ mit Besatzung besetzten und die Besatzung von Bord brachten, fanden sie die Maschinen unbrauchbar gemacht. Es dauerte Monate, bis es ihnen gelang, das Schiff so weit auszubessern, daß es wieder seetüchtig wurde. Das Schiff war auch zu ganz anderen Zwecken bestimmt als der Massenverschiffung von Soldaten und Munition. Um es einigermaßen seiner neuen Bestimmung anzupassen, fielen die Amerikaner: Lt. Rölln. B., wie die Bandalen mit Äxten und Sägen und Sämmern über den stolzen Bau her und rissen die kostbare Inneneinrichtung mit solcher schmachtvollen Rücksichtslosigkeit heraus, daß die prachtvollen Edelhölzer nur noch als Brennholz zu verwerthen waren; 20 Eisenbahnwagen wurden mit den Trümmern gefüllt und in Hoboken verkauft. Nur das große Gemälde im Treppenhaus wurde herausgenommen und im Hotel Baltimore aufgehängt. Von den erhofften 12.000 oder gar 15.000 Soldaten war kaum die Hälfte unterzubringen, wie überhaupt die gestohlenen Personen, darunter der beiden deutschen Linien nicht die Fassungskraft aufwiesen, die man ihnen zugeschrieben hatte. Mit den 16 deutschen Schiffen waren im ganzen nur rund 28.000 Mann und 5500 Offiziere auf einmal zu befördern, und die Hoffnungen der Amerikaner erfuhren infolgedessen eine empfindliche Enttäuschung. Die geraubte deutsche Flotte ist schon recht erheblich gelichtet worden, denn unter den 40 versenkten Truppenshipps der Amerikaner befanden sich sicherlich verschiedene deutsche. Mindestens wissen wir aus amerikanischen Quellen, daß der „Präsident Lincoln“ am 31. Mai einem deutschen Torpedo zum Opfer fiel, und nun ist die „Waterland“ gefolgt. „Präsident Lincoln“ war eines der vier Schiffe, denen der Räuber den ursprünglichen Namen belassen hatte; die andern drei sind der „George Washington“, der „Präsident Grant“ und die „Pennsylvania“. Die „Waterland“ dagegen wurde in „Leviathan“ umgetauft, die „Kronprinzessin Cecilie“ in „Mont Vernon“ der „Kaiser Wilhelm II.“ in „Agamemnon“ und die „Amerika“ in „America“.

Der jüngste Lidenste brachte folgende Schilderung ihres New Yorker Korrespondenten:

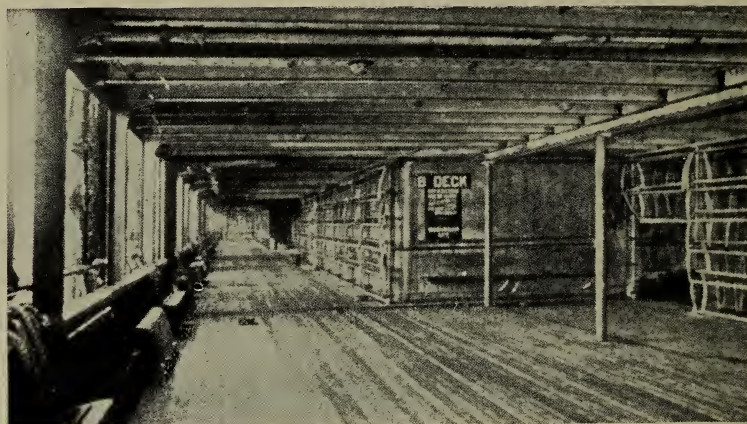
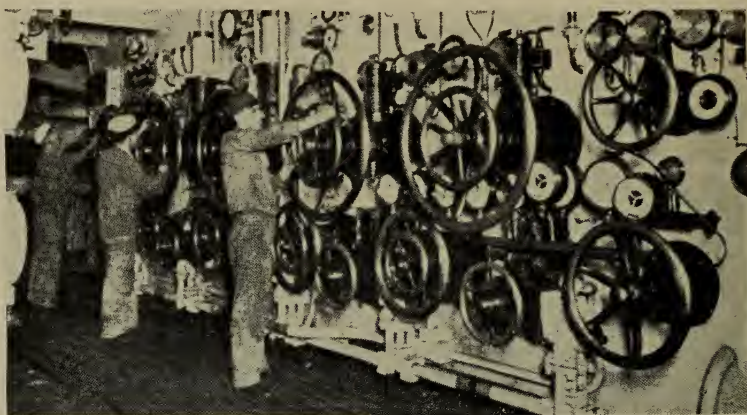
man a newspaper, expecting to find some information that might prove valuable. He found the following translation which he immediately cut out and saved to show a friend on the *Leviathan*.

HOW THE "VATERLAND" WAS MADE INTO THE "LEVIATHAN"

On the Declaration of War, April 6, 1917, the American robbers seized the steamer *Vaterland* along with others of the German merchant fleet that was interned in the United States. The crew and most all the ship's equipment have been taken off. However, they found the machinery unfit for use and it took them months to repair it and get the ship in a seaworthy condition. The big ship was never built to carry troops and ammunition, and to make it fit for such uses the thieves tore out all of our beautiful art and all of the fine woodwork, regardless of all feeling. Twenty freight cars full of wood and furnishings were taken from the ship and loaded in Hoboken to be burned. Only one great painting was accounted for. This was located above C deck at No. 1 stairway, and it now hangs in the Hotel—in New York. They hope to accommodate 12,000 or 15,000 troops. This they will never be able to do, not even half that amount. On the sixteen stolen ships there was only room for 28,000 men and 5,500 officers, so the Americans will have to change their hopes.

The stolen German fleet has been greatly reduced, for surely **of** the forty troopships that have been sunk there must have been **some** of ours amongst them. Nevertheless, we know through American sources that the *President Lincoln* fell to the mercy of a German torpedo on May 31st. The *President Lincoln* was one of the four sister ships seized by the robbers. The other three were the *George Washington*, *President Grant*, and the *Pennsylvania*. Some names have been changed to the following: The *Vaterland* to the *Leviathan*, the *Kronprinzessin Cecilie* to the *Mount Vernon*, the *Kaiser Wilhelm II* to the *Agamemnon* and the *Amerika* to the *America*.

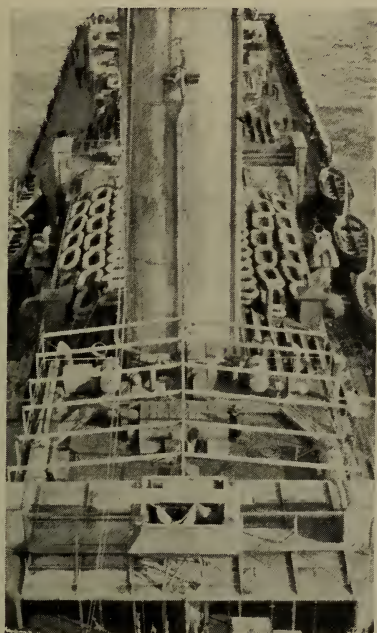
The *Vaterland* lay at Hoboken with her German complement of officers and men intact and protected by the splendid neutrality of the American Government. To the date of the declaration of war, April 6, 1917 (Good Friday, 1.13 P. M.), the huge ship aided the German Red Cross by a series of social entertainments on board given under the auspices of



UPPER—ENGINE OPERATION BOARD.

CENTER—B DECK PROMENADE.

LOWER—ALONGSIDE PIER 4.



UPPER LEFT—LOOKING AFT FROM THE BRIDGE. UPPER RIGHT—PARAVANE.
 LOWER LEFT—THE STERN ANCHOR. LOWER RIGHT—THE FOG BELL.

ship's officers. A great number of prominent people attended these fetes.

Early in April, 1917, the ship was taken over by the United States Customs Officials. The customs officials inspected her and put aboard guards which were later replaced by several civilian employees of the U. S. Customs. The guard was increased later to about sixty men from the Police Reserve from the 37th Precinct, New York City.

DAMAGE DONE TO SHIP BEFORE SEIZURE

The lower decks were found to be in a filthy and unsanitary condition, only the upper decks, open to inspection, were found clean and inviting. The ship's furnishings in the staterooms and public assembly rooms were magnificent and showed a high degree of taste and art. The paintings of different notables, Bismarck, Lincoln, Washington, Roosevelt, etc., were later removed. In the engine room, fire room and dynamo space, much deterioration had taken place.

The vast accumulation of ship's stores and provisions, the high class wines, the magnificent table linens and china and glass ware and about \$150,000 worth of silver ware were taken off the ship and placed on the pier for further disposition. Much of the medical supplies and provisions as well as different furnishings from the staterooms were found to be missing. It is said that these were taken by the German personnel before the ship was taken over by the American authorities. The latter destroyed some of the medical stores found on board fearing that drugs and medicines might have been tampered with and poisonous drugs compounded with non-poisonous and placed in chests bearing false labels.

A marine construction company sent down divers to do necessary work scraping the bottom and to locate the propellers. Owing to the destruction or disappearance of all blue prints as to the location of the various propellers, it was a matter of some delay. These blue prints were later found in the Hamburg-American Line's office and some of them proved inaccurate. United States Secret Service Agents raided

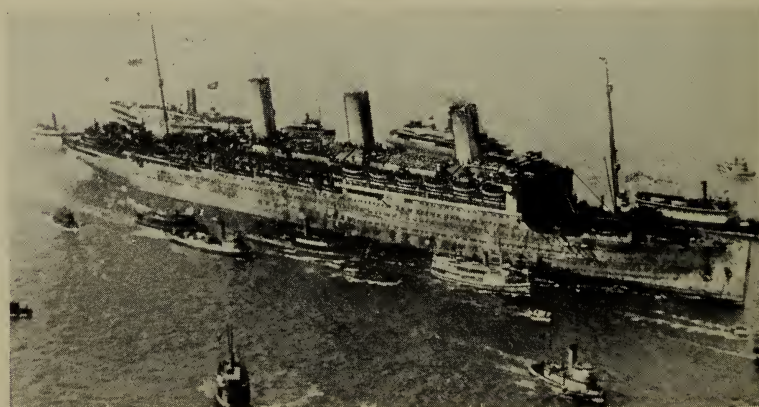
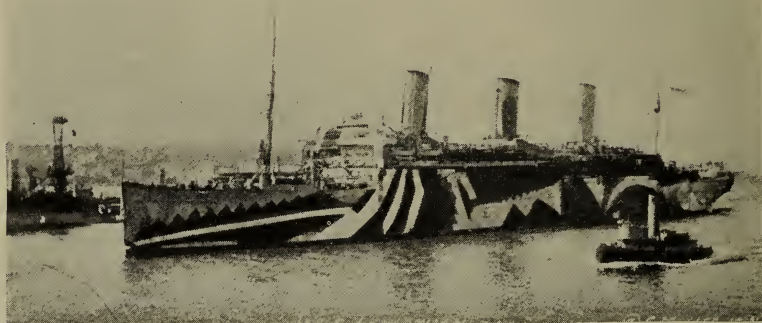
the Hamburg-American's office on Broadway, New York City and discovered them with other secret diplomatic correspondence showing the machinations of Germany in Mexico and South America. In the hull of the ship many articles of German handiwork and craftsmanlike skill were found, such as small toys, probably carved by the crew for sale among the visitors to the ship in order to obtain some spending money.

The crew of the *Vaterland* numbered 1,200 during her transatlantic voyages. But at the time of her seizure they numbered only about 300 as a large number of the crew, in order to make a livelihood, left the ship and established themselves in different positions in hotels and restaurants of nearby cities and upon other ships.

When the United States Customs Officials took charge, at 4 A. M., April 6th, they searched everybody who came aboard thereafter and detected a number of men having articles of destruction. Several attempts to smuggle small bombs and explosives into the coal chutes from the coal barges alongside were frustrated by the guards. When the Navy took over coaling the ship, a more vigilant guard was maintained. The guards had orders to keep off all unauthorized boats at a distance of 100 yards. There was much reason for this strict order. The United States Customs Officials turned over the *Vaterland* to the United States Shipping Board. Among the shipping board employees was a number of hardy Filipino and Hawaiian firemen, very sturdy and enthusiastic about their work. They were presumably from merchant ships in or about the harbor and they gladly offered their services in behalf of their adopted country. "Africans" was a favorite sport with them.

During the hot spell of July, 1917, several of the Filipino firemen were affected by the intense heat and were removed to the hospital for observation. All employees on the ship had their identification cards with their photograph attached. Hoboken was a hotbed of pro-Germanism and our officials could not be too careful.

At 10 A. M., July 25, 1917, the American flag was hoisted under the orders of the Navy Department. This interesting ceremony, which meant so much to the oppressed peoples of



UPPER—LEAVING NEW YORK.

CENTER—IN MID-OCEAN.

LOWER—ENTERING NEW YORK HARBOR WITH 27TH DIVISION.

the world, was witnessed by only a few men. The first draft of seventy-one firemen came aboard later in the day. The main dining room was converted into a mess hall for the troops, and the beautiful swimming pool of Pompeiiian decoration was turned into a baggage room. The after baggage room was turned into a brig (or ship's prison), and a powder magazine.

The first entry in the official log of the former German ship *Vaterland* follows:

8 A. M. TO MERIDIAN

At 10 A. M., July 25, 1917, the *U. S. S. Vaterland* was placed in commission by Captain J. W. Oman, U. S. N., in accordance with letter C-467-4 from the Commandant of the Navy Yard, New York.

The watch was set. The following officers were attached to this ship:

Captain J. W. Oman, U. S. N.; Ensign A. H. Bateman, U. S. N.; Assistant Paymaster L. B. Foster, U. S. N. R. F.; Assistant Paymaster H. B. Judkins, U. S. N. R. F. Fifty-five (55) workmen were on board, work going on in the engineering department and on deck under the direction of the shipping board and customs officials. Divers cleaning bottom.

(Signed) FRED K. HARPER, Lt. (j. g.) U.S.N.R.F.

During this period work was progressing steadily under the direction of the different heads of the departments and there is nothing of special interest to relate.

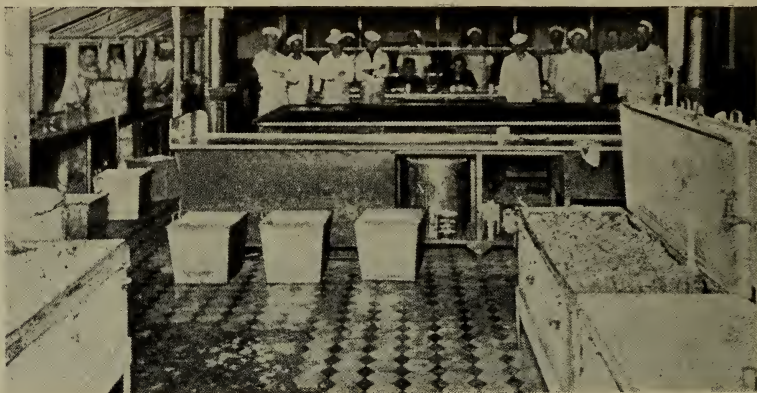
A carrier pigeon, w-7463, fluttered through the air and dropped dead on C deck.

One fireman was court-martialed for using profanity, thus showing the quick application of Navy discipline.

NAMED "LEVIATHAN"

On September 6th the name of the German ship *Vaterland* was changed by order of the Secretary of the Navy, without ceremony, to the *U. S. S. Leviathan*, meaning monster of the deep and mentioned in the Book of Job in the Old Testament.

Small fire on board, September 23, 3.50 A. M., "F" Deck, aft.



UPPER—TROOP GALLEY (KITCHEN).

CENTER—TROOP MESS HALL.

LOWER—THE RITZ-CARLTON AND THE WINTER GARDEN.



TROOP SPACES

On September 26th there was a large amount of "Imperial" sausage received aboard.

In the latter part of October, 1917, the big caliber guns were placed upon their respective mounts. A depth charge chute was erected on the stern and fire control and range finding apparatus were installed to insure the accuracy of the guns.

All the staterooms on the lower decks of the ship were ripped out to make room for standees, which are an open iron frame work with canvas bunk bottoms to be occupied by the troops in transit to France.

Work was begun in the main theatre and ball room to convert it into a hospital for troops and crew during transatlantic voyages.

An isolation ward was established in the gymnasium on "A" Deck for contagious cases. The ship's doctor's office was used as a sick call station and dispensary for troops and crew.

Dock trials took place in the morning watch of November 12th. These trials lasted until 2 P. M. The ship reported ready for sea and on November 17, 1917, a trial trip to Cuba was made.

THE CREW-SHIP'S ORGANIZATION

Before describing the trial trip it is well to say something here of the crew and the ship's organization, which was a vital factor in the successful operation of the *Leviathan* and its participation in the World War.

The crew of the *Leviathan* is divided into two main parts, one part consisting of the deck divisions and the other of the engineer's division. The deck force is composed of nine divisions all told, four of which do the deck work proper and five of which are special branches. The deck divisions are divided into four sections each and the engineer's division into three sections. Each man of the crew is assigned a number which gives his division, section and personal number. For instance, the man holding the number 841 would be the first man in the fourth section of the eighth division. The first figure of the number is the division, the second figure the section and the third figure or third and fourth figures together is the man's

number. The men of the deck force wear a white band around the left arm at the shoulder on blue uniforms, and a blue band on white uniforms. The men of the engineer's force wear a red band on both blue and white uniforms. The petty officers of the deck force proper wear their rating badges on the right arm and all other petty officers wear them on the left arm.

The first, second, third and fourth divisions are the men detailed for the deck work, manning guns, lookouts, fire control, etc. The first division has the fore part of the ship or fore-castle; the second division the top deck; the third division the inside decks and the fourth division the after part of the ship. The fifth division is known as the repair division, and consists of the carpenters, painters, plumbers, buglers, yeomen and other men of special ratings.

The sixth division is known as the navigators' division and consists of the quartermasters and signalmen. The seventh division is the hospital corpsmen. The eighth division is the Supply division and consists of the personnel of the Pay and Commissary branches and the mess attendants or waiters.

The ninth division is known as the Bluejacket guard and has the policing of the ship, also furnishes orderlies for the Commanding and Executive officer and all ship's guards.

The tenth division is the engineer's force consisting of half the ship's crew, and includes all men working in the engine rooms, firerooms, and dynamo rooms. The radio force of the ship is also included in this division.

The ship's complement is 68 officers and 2,240 men.

THE TRIAL TRIP

"I have to report that the Engineering Department of this vessel is in all respects ready for sea."

Thus read Lieut. V. V. Woodward's official report to Captain J. W. Oman, November 16, 1917, an expression of confidence not unanimously shared by the crew or public. The Captain, Engineer Officer, the Navy Department, were confident she would leave despite boasts to the contrary by German agents and sympathizers.

Promptly at 9:30 A. M., November 17, 1917, upon signals from the bridge, steam was admitted to the *Leviathan's* great turbines, the hull was felt to quiver slightly, and the greatest passenger carrying ship on the ocean backed smoothly from her moorings of three years into the North River. Here was another triumph of Yankee ingenuity.

No blare of brass bands was heard, no cheering crowds thronged the river front, as, amid a fleet of eighteen tugs, the former pride of the German maritime world, manned by an all-American crew, straightened her course and under her own power, headed slowly for the open sea.

On board were 241 marines, in addition to the crew, bound for Cuba to relieve a detachment of seasoned "Devil Dogs." Prior to sailing, Captain Oman had issued an order, stationing these men in conspicuous positions about the upper decks, giving the appearance from the river front that thousands of troops were bound overseas to swell the numbers of the American Expeditionary Force.

Anchorage was made off Fort Wadsworth that afternoon to permit a thorough inspection of machinery spaces. The result was that "The Engineering Department was in all respects ready for sea," for, aside from a few minor repairs, the renewal of a gasket here, a nut tightened there, no defects were revealed.

At high tide the morning of the 18th, she steamed slowly through Ambrose Channel, shifted to high pressure cruising combination and began speeding eastwards at eighteen knots.

Numerous craft sighted the *Leviathan*, her course was noted by westbound steamers and thus was the rumor "confirmed" that she was on her initial trip to France, laden with thousands of troops.

Throughout the day, under the supervision of Lieut. C. H. Boucher, gun crews were given instructions. Small arms, abandon ship, and fire and collision drills interfered seriously with the sighting of flying fish, leaping porpoises, and the discussion of "Why is the Gulf Stream?"

Trouble was first encountered on the 19th, when a valve stem on the differential valve of the port steering engine broke.

The ship is equipped with two steering engines and the star-board engine was quickly cut in and the voyage resumed. Similar trouble occurred the succeeding day, leaving the ship without power to hold her course. The engines were stopped and the *Leviathan* lay helpless, a plaything of the winds and currents.

ANXIOUS HOURS

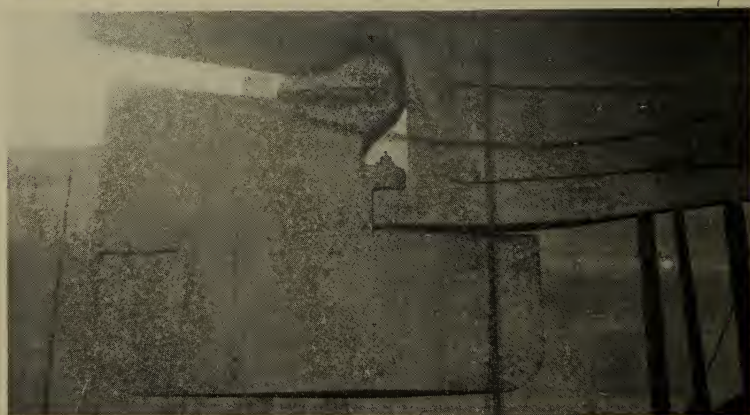
These were anxious hours for the officers and crew alike. Sleep was forgotten, personal comforts were of secondary importance. Lieut. Woodward haunted the steering engine room, pored over blue prints, conferred with assistants, advised and worked with the men. New stems fitted to replace the broken ones, permitted runs of short duration, then they, too, broke under the strain. A quantity of these stems, broken and twisted, were found in a store room, an indication that its former operators had experienced trouble of this nature.

For twenty-four hours the crippled ship made spasmodic runs to the northward; first one, then the other, then both steering engines became inoperative. The Engineer Officer grew haggard. The ship's doctor insisted that he get some sleep, but a few hours' restless tossing upon a couch, and he would be seen again, making his way aft to the steering engine room.

The solution of the problem came to Lieut. Woodward during one of these brief respites. Clad in greasy dungarees, reclining upon a couch, following thirty-six hours of constant toil, Lieut. Woodward suddenly jumped to his feet and assembled the tired mechanics, and explained his plan. The machine shop was invaded and a new stem of heavier design and altered pattern was fitted.

Then, under the anxious eyes of the Captain, Engineer Officer and First Lieutenant, a test was made. The throttle was thrown clear over, permitting the engine to race, and the new stem held. It is still holding, like its mate of similar design, after more than 100,000 miles through the wind-swept North Atlantic.

During the voyage south to Cuba, the crew shifted into white uniforms. The port holes were closed tight and painted



UPPER—CLUMP FOR PARAVANES.

CENTER—MOORED IN BREST.

LOWER—THE HUGE RUDDER.



UNDER WATER BODY OF THE "LEVIATHAN"

deep black. All precautions were taken against unexpected attack. We passed close aboard Matling Island, or San Salvador whereon Columbus first set foot in the New World.

We rounded Cape Maysi Light and headed up for the harbor of Guantanamo Bay. While changing troops at the mouth of the harbor, our great draft precluding our entrance, the men-of-war-men initiated the rookies into the delights of shark-catching.

CATCHING SHARK

While lying at anchor off the beautiful harbor of Guantanamo Bay, those of the crew who were off watch were lounging around the open decks and enjoying the heat of the tropical sun. Among the crew were some old navy men who had visited this port before and knew from experience that these waters were infested with sharks. They suggested that a line, hook and bait of some kind be procured and an attempt be made to catch sharks.

The necessary articles were obtained, the hook being double-pronged. To this was tied a whole cow's liver—a juicy and inviting piece of bait.

The waters of the bay were calm and from "B" deck, when the fishing line, which was of 1 inch hemp, was thrown over, one could see the hook and bait fully thirty feet below the surface of the water.

In a short time a large black body with a white belly swam with lightning swiftness past the line several times, darting back and forth, but on a sudden it turned, seized the bait and tried to make off with it. The end of the line on deck was tied to a stanchion which gave the shark a strong opponent, and a terrific struggle followed both on deck and in the water, for as soon as Mr. Shark struck, about 40 men grabbed the line and began to run across the deck, pulling the fighting monster out of the water onto the deck.

As soon as the shark landed on deck every one scattered, for the big fish began frantically to lash his powerful tail and snap his jaws. No one dared approach him.

T H E U. S. S. L E V I A T H A N

Finally when the shark was exhausted, one of the *Leviathan's* butchers drove a cleaver into the strong skull and ended the death struggle. The same piece of bait obtained three other sharks before it was lost, owing to a slack in the line, when a ten-footer tried to join the company. The line broke and the prize, and hook and bait, with about thirty feet of brand new line, was lost.

Part II

Running The War Zone

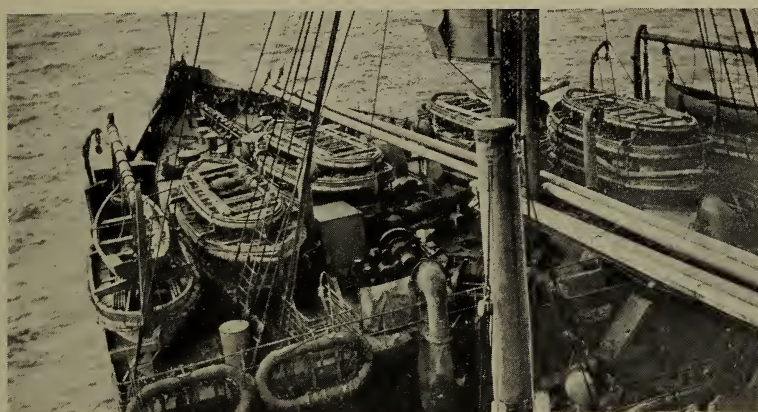
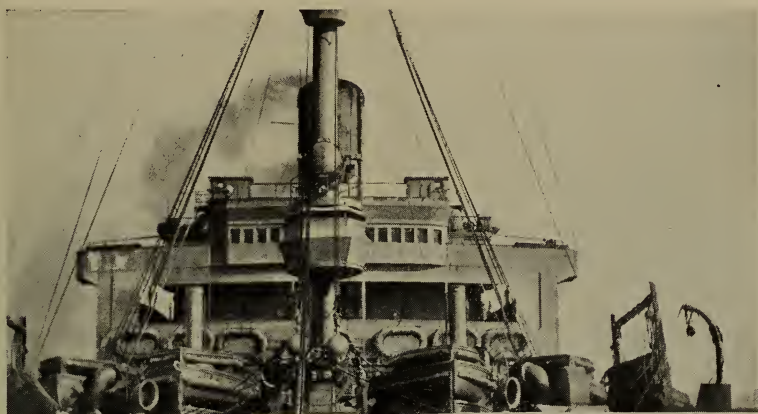
FIRST VOYAGE TO LIVERPOOL

At 7.34 A. M., December 15, 1917, the *Leviathan* left her pier in Hoboken for her first trip across the Atlantic. Twelve tugs were employed to assist in swinging the bow of the giant ship toward the sea. The following organizations and numbers of troops were on board, in addition to some notable passengers:

No. 7,254. Organizations—Base Hospital, No. 31, Female; Base Hospital, No. 34, 82nd Brigade Hdqts., 163rd Inf., 164th Inf.; Commanding Officer, Brig. General Edward Velluth, 82nd Brigade.

The morning was rather raw, with the snow falling heavily, but nothing could dampen the ardor of the 7,254 troops and 2,000 sailors on board. We were about to cross the ocean, most of us for the first time, and the hazard of the perils of the submarine, whose operations were more active at this period of the war than at any other time, and the excitement of the adventure, if nothing else, was sufficient reason for everyone to keep his spirit up.

Passing through Ambrose Channel, the ship headed for the open sea with the compass pointing due east and the propellers revolving at the rate of 158 revolutions per minute, which is equivalent to 21 knots. Until sundown this same night, a zig-zag course was maintained, not because of the danger of submarines, for none were reported off the Atlantic coast at this time, but in order to give the officers and men



AT SEA

on the bridge an opportunity to become thoroughly acquainted with this method so as to be familiar with it when in the danger zone.

Abandon ship drills were held this day, all members on board falling in at their respective boats and rafts in a quite orderly fashion and lowering the boats in a remarkably short time.

At 2.00 A. M. the next day, December 16th, lights of western-bound ships were sighted off the port bow. The sky was completely overcast, with a rough northwest sea, accompanied with fresh strong breezes. Our speed averaged 20 knots this day, all 46 boilers in the fireroom being in commission. The clocks were advanced 47 minutes.

The next day a moderate gale was blowing and we passed through heavy rain squalls. Due to the heavy sea our speed was reduced. The sky remained overcast with the barometer dropping steadily giving little hope of the weather moderating. The customary drills of abandon ship and fire alarm were gone through. The water-tight doors, so essential in case of submarine attacks, were tested and found O. K.

The sea moderated sufficiently the next day to allow us to increase speed once more, this time to 21½ knots, although the ship rolled and pitched considerably as the heavy swells struck her, many of the troops on board showing the effects of the inevitable *mal-de-mer*. We passed through a thick fog when off the Grand Banks.

On the 19th, while holding abandon ship drill, twelve rounds of ammunition were fired from the various guns, in order to keep them in tip-top shape and to give their crews the necessary training in loading and firing. At night the sky cleared considerably, the first sign of good weather we had since leaving Hoboken. The barometer rose steadily, a smooth sea running with a moderate breeze. From day to day we continued setting our clocks ahead. Up to this time the entire crew was in ignorance of the ship's destination, but when the course was changed to northeast, it was quite apparent to us that we were headed for "Blighty."

We were passing through the Gulf Stream and the weather remained clear and fairly warm. A private in Co. H, 163rd Regt., was placed in the brig for safekeeping, at the request of the brigade commander, demonstrating that the soldiers on board were subject to the same discipline as were the crew. Not long after this a member of the crew was disciplined for failing to wear his life-jacket.

The good weather did not remain with us very long, for on the 22nd the wind picked up to 65 miles an hour. We were rapidly approaching the war-zone and the men were continually cautioned not to neglect wearing their life-preservers at all times, day and night, not to undress upon turning in, and never to strike a match on the open deck at night. In fact, it was contrary to ship regulations for an enlisted man to carry any matches at all about his person. It is a fact that the glare of a lighted match or cigarette is visible for half a mile on the open sea at night and guards vigilantly patrolled the outer decks in order to prevent any neglect along this line.

About midnight, while running close to the danger zone, the wire controlling the siren contracted, due to the extreme cold weather, and like a bolt out of a clear sky, the siren went off automatically. The siren is used only in case of emergency, to notify all hands on board of some impending danger, and going off accidentally as it did caused quite some excitement on board, especially in the case of the Red Cross nurses. Many of the latter had been quite seasick the greater part of the trip, but the excitement tended to relieve them somewhat. After some difficulty the trouble was remedied.

At 4 A. M., the morning of the 23rd, in a treacherous sea, our convoy of American destroyers, the famous submarine annoyers, were picked up. It is hard for one to describe the feeling and excitement of picking up a convoy of destroyers at night and we believe that it is quite impossible for the reader to understand how much it means to 10,000 souls on a ship in the danger zone when the word is passed that destroyers are with us. On the morning of December 23rd, at 4 A. M., out

T H E U. S. S. L E V I A T H A N

of the black sky just before dawn and in a heavy sea with a strong wind blowing, a small white wake was seen by the lookout on the bridge. At first it was taken for the wake of a periscope and the gun crews were called to quarters, then as the guns were trained on it, a small white flash was seen blinking the American recognition signal, and we then knew that it was one of our destroyers. We picked them up out of the black sky and a heavy sea until there were seven little wasps that spelled danger to the Hun submarine. They sped along with us while we zigzagged in and out on our course. They crossed our bow and ran in and far out on each side of us, always looking for the sub that might be lying in wait for us. Their motto was "go get 'em." They never waited for a sub to attack first, they always started the fight provided that "Fritz" was willing to show himself and we want to say right here that he was very reluctant to do so when an American destroyer showed itself.

It was difficult to carry on signal communication with the destroyers in a heavy sea; they were submerged in the trough so that their slender masts looked like periscopes.

THE OUTER GUARD

A tribute to the Destroyers by JOHN OXENHAM

Bold watchers of the deep,
Guards of the Greater Ways,
How shall our swelling hearts express
Our heights and depths of thankfulness
For these safeguarded days?

Grim is your vigil there,
Black day and blacker night;
Watching for life, while knavish death
Lurks all around, above, beneath,
Waiting his chance to smite.

Your hearts are stouter than
The worst that Death can do.
Our thoughts for you!—our prayers for you!
There's One aloft that cares for you,
And He will see you through.

Don't think we e'er forget
The debt we owe to you!
Never a night but we pray for you!
Never a day but we say for you—
"God bless the gallant lads in blue!
With mighty strength their hearts renew.
Bless every ship and every crew!
Give every man his rightful due!
And bring them all, Oh, God! safe through.

A submarine was reported on the surface of the water in the early afternoon, about seven miles off the starboard beam, but upon her flashing out the recognition call we immediately knew her to belong to one of the Allies, very probably British. Soon after this a British dirigible was sighted dead ahead. She was painted aluminum color, rendering her almost invisible in the distance and apparently she was doing scouting duty in these waters.

At 5 P. M., the 23rd, South Stack Lighthouse was passed on our beam, and we headed our course up St. George's Channel. After sundown the destroyer that had our pilot on board took up a position directly ahead of us and acted as guide for the entire convoy.

Later in the evening, 8.36 P. M., our engines were slowed down to allow the pilot to board from the destroyer and at 9.42 that night both engines stopped completely and our anchor was dropped just outside of Liverpool, England, while the destroyers circled around us during the night, protecting us from any possible attack. We passed the night in this anchorage. At 6 A. M. the next day, December 24th, we up-anchored and headed for the River Mersey, passing close to Bar Light Vessel. One of the men stationed aboard this vessel gave us a "Merry Christmas" through a large megaphone. Many of us had almost forgotten that this was the day before Christmas; in fact, as later events proved, Christmas had very little cheer for us.

Formby light was passed at 8.45, and Crosby Light 27 minutes later. We were now in the Mersey, our speed was reduced and because of the shallowness of the water in the river, men were placed in the chains to sound continually the

depths of the water. We steamed up the river without mishap and ran alongside the Princess Landing Stage, which because of the heavy draft of the tide in this river, is a floating stage. Our lines were thrown to the dock and made fast. No sooner had this been accomplished than the gangway was thrown over and the soldiers commenced disembarking. This continued throughout the day.

Shortly after arriving news came to us of the sinking of a British pilot boat, with the loss of all hands. This same pilot boat had been mined in almost the same position that we were lying in the night before, in fact many of us remembered the boat as it was cruising around us, warning all outgoing ships of the latest submarine activities. It was purely a matter of luck that we had escaped a similar fate.

The celebrated docking of the biggest ship in the world at Liverpool, without plans, by Naval Constructor Alfred W. Minuse, N. R., is the subject of a special article.

LIVERPOOL

The first liberty party from the *Leviathan* while in Liverpool, left the ship at 4.30 P. M. on December 24th, and was due back at noon on the 25th, which was Christmas, and it turned out to be a gloomy, cheerless Christmas, for most of the boys had never been away from home on that sacred day before. Their first impression of the city was a poor one—dimly-lighted streets, cold rain, dark alleys, and foggy river. Dismal, indeed, after leaving a land of sunshine and bright lights and coming to a land mostly of darkness and rain. The sun did not rise during this time of the year until nearly 9 o'clock, at least that was the time that it was supposed to rise, but it was seldom that we had the pleasure of seeing it even for a full hour. Sunset was at 3.30 P. M., or in the vicinity, so it will be seen that the days were real short during this season. To think that we were to spend two months or more in this country! We certainly were sorry for the men who were stationed there and we would not change places with them for a Navy clothing contract. The city appeared remarkably



UPPER—A STORM.

CENTER—WAR PAINT.

LOWER—DISEMBARKING TROOPS (LIVERPOOL).

true to type and character described by Conan Doyle in his books. Without a doubt our impression would have been much better if we had been there in time of peace. We did not realize the trials that England had been through in the years before we entered the war. Her best men had gone to fight and her streets had to be kept dark because of air raids. Then there was a food problem. The German U-boats sunk everything possible that came within the range of a torpedo or a gun, so it may be seen that England depended mostly on her ships to bring food to her brave people and armies. When our crew went ashore it was with great dismay that they viewed the food problem—a meat card, a bread card, a tea card, a butter card, were all necessary for a fellow to get a meal, and what was worst of all, there was no sugar for our coffee and not being tea drinkers we were very much grieved to find out that we must use a chemical called saccharine to sweeten our coffee. However, we soon got used to it, but whenever possible we stayed on the ship for meals to make sure of things. It may be mentioned that at the time there was no American Y. M. C. A. in Liverpool. The English “Y” was as bad as the restaurants as far as eating was concerned. The English mode of travel was another puzzle to the American Bluejacket, there being three different class distinctions. It seemed queer to an Englishman that an American sailor should ride in a first class compartment on a train supposed to be only for the “higher class” people. It took our bluejackets quite some time and cost a few black eyes and bumped noses to convince some Englishmen that an American would not stand for any inferior rating.

The English money was not such a puzzle as we had expected to find it. In a few days and with the loss of a few dollars in short change we soon learned to count it. We even have reason to believe that during our first few liberties ashore we actually received full value for our money in some instances. One of the many questions asked us on our return was: How and what are the English girls like? Gee! what a question to deal with. Well, here goes for a hard try to be fair in all cases. We found that most English girls are not stuck up and

are always willing to speak to a "gob" if he so desired. They are more masculine than our girls. Girls run after a car and hop on it while it is going at a good speed, and as far as good looks are concerned there are pretty girls and then there are others—of course this may be found the world over and in any country. The streets of the city were, for the most part, narrow and nearly always muddy and if a fellow came back to the ship without wet feet it was something unusual. There were shows of different kinds: vaudeville, drama, and musical comedy, not forgetting the movies and Charlie Chaplin. The shows helped to fill up a great lot of our time.

We were not at all sorry when we were told that we were to leave in a few days, as all the necessary work had been finished. The ship had been camouflaged in a most queer design by English experts, which made it appear more grotesque than ever.

The camouflage design was so perfect that when the destroyer convoy met us at sea it was necessary for them to approach us in the shape of a fan to make sure as to the direction we were going. Many persons have been misled as to the real use of camouflage on ships. Contrary to most beliefs it is not to make a ship absolutely invisible to a submarine, but to deceive the eye of the periscope in the submarine. A ship is disguised so that from a distance it appears to be going in an opposite direction, or on an angle to the real course traveled.

On Lincoln's Birthday the *Leviathan* left Liverpool. We had gone through a rough vigil. If one were to ask us what it was we liked best in Liverpool we would have answered, "The first ship back to the states," for Liverpool, with its bleak, dimly-lighted streets and the piercing, foggy atmosphere was no attraction.

We were in a heavy sea practically from the time we left the Mersey until within a day or two of New York.

One interesting event occurred soon after our departure. The *Porter*, one of the crackerjack destroyers, sighted a suspicious spar in the water. With an abrupt change of course, and almost turning in her own length, she made direct for the

object, dropping a 300-pound depth charge of T. N. T., which blew the spar to atoms. At this time the crew was down "chowing," enjoying the famous *Leviathan* "turnovers." The explosion of this charge shook the ship and all hands rushed on deck.

HIGH SEAS

The violent seas broke over our fo'castle, throwing the spray as high as the flying bridge, 100 feet above the water. It tore gun rails apart, lifted lifeboats from their fastenings, opened shell cases and did considerable all-around damage. Some good came of it—the first division men found no reason to wash down decks for some time to come.

The destroyers were unable to keep up with us, and it is remarkable that they stayed with us as long as they did. The sea proved too much for them. When caught in the trough formed by two high waves, hardly more than the top of their stacks and masts was discernible. They trailed behind us the entire next day, within radio call, and turned back upon receiving word from us that we were out of the danger zone. The danger from submarines was rather slight when it is considered how difficult a matter it would be for them to launch a torpedo accurately in a heavy sea.

We continued upon our course without event until off the Grand Banks of Newfoundland. Here we ran into a fog so thick that it was impossible to see our bow from the bridge, and every minute for eight hours of this day our steam fog whistle blew steadily, warning all nearby ships of our approach.

Nantucket Lightship, the first indication of land, was reported by one of the signal boys on the night of February 18th. Montauk Point and Shinnecock Lights soon followed and the next morning found us at the entrance to New York Harbor, our first overseas trip successfully completed.

The ship was brought up the river to the dock in the thickest fog seen for years. Capt. W. S. McLaughlin gauged the turn nicely and Capt. W. J. Bernard had a tug stationed at the end of Pier 4 to guide the *Leviathan* in by whistle signal. It was a highly creditable performance.

Second Trip to Liverpool

After a stay of thirteen days in New York, during which time our supplies were replenished and minor repairs and alterations were made, we steamed out of New York Harbor on March 4th, for our second trip overseas. On board we had 3,242 troops, with the following organizations:

120th Field Artillery, 121st Field Artillery, 2nd Motor Mechanics, 9th and 10th Brigades, 20th F. A., 5th Div. School; Maj. Gen. J. T. Dickman. Accompanying us was H. B. Davison, Chairman of the War Council, American Red Cross. After passing out of the channel we dropped our Pilot at Sandy Hook and once more set our course at 90 degrees headed due east. Fire Island Light was passed abeam at 2.43 the same afternoon. We were making a standard speed of 20 knots which was maintained throughout the day while the weather remained clear and the sea smooth. After sundown the ship was darkened with the exception of a few blue lights, commonly known as battle lights, located at the various watertight doors and at the stairways. For two days following, the weather remained moderate with occasional rain squalls and light northeast winds. From this time on all of our watertight doors were kept closed while an army guard kept constant watch on all doors to see that they were not tampered with or opened. Abandon ships drills were held each day and it may be mentioned that there was ample lifeboat equipment for every soldier aboard. Each soldier was provided with a lifebelt. On the afternoon of March 7th smoke was sighted dead ahead, we discovered it was a British cruiser and a half hour later we passed her, on our starboard beam 15,000 yards distant. On this same day a soldier on board was placed in solitary confinement for making seditious remarks.

At 6.15 A. M., March 9th, the following radio message, which was sent broadcast to all ships, was received:

"Vessels may meet three Allied submarines now proceeding from New London to Bermuda. Not escorted at present."

We entered the War Zone on the eight to twelve watch on the morning of March 11th, picking up our escort of destroyers, seven in number.

The rendezvous is previously arranged by cable and the destroyers are picked up by wireless from 24 to 36 hours before meeting. The times of arrival at the rendezvous are exchanged, and the meeting place arranged.

After picking up our escort, of which the Destroyer *Manly* was the senior ship, we proceeded on a zigzag course heading again for Liverpool. While passing through St. George's Channel the *Manly* was seen to suddenly swerve out of the formation and while only 800 yards from our port bow she commenced firing with her forward battery and fired a five-inch shell apparently at some suspicious object sighted. She immediately dropped a depth charge. It was so close that the *Leviathan* shook from stem to stern and many thought that we had struck a mine. What the object was we do not know, but if it was a sub, we extend our most heartfelt sympathies to the families of the crew. We proceeded on our trip without further event and the following afternoon found us in Liverpool once more. Immediately upon arriving the disembarking of troops and baggage was begun. The next morning, before all troops had left the ship, it was necessary for us to proceed to dry dock while the tide was high. One of the river ferry-boats unfortunately passed too close to us and suffered considerable damage, although she had been properly warned to give us right of way.

Safely moored in Gladstone Dock this same afternoon, the disembarking of troops was continued and completed the next morning. It was fine to see regiments of American troops, with flags unfurled and bands playing popular Yankee airs, marching to war. The boys aroused the admiration of the English.

Our stay in Liverpool, from March 12th to April 10th, was similar to the previous one. Minor repairs were made and our troop-carrying capacity was increased.

English contractors had been coaling the ship for at least three weeks and a few days before sailing it was found necessary for the crew to take this work in hand. The men worked faithfully, night and day, for each additional ton placed in

the bunkers brought them so much closer to America—"God's Country."

GERMAN PRISONERS

On April 9th, thirty-seven German prisoners, captured by the destroyers *Fanning* and *Nicholson* when they bombed and sank the U-58, were brought on board under guard for transportation to the United States. These prisoners consisted of thirty-three enlisted men, one warrant officer, and three commissioned officers. They were young men, their senior officer had been awarded the Iron Cross.

Previous to their arrival arrangements had been made by the ship to guard them on the trip over. Twelve shot-guns of English make were purchased ashore and sawed off by the ship's armorer to make them more effective for this sort of work. The aft brig was put in readiness for the enlisted prisoners, while staterooms on "C" deck were set aside for the officers. Chief petty officers were detailed to guard the officers on the trip over, while the guarding of the enlisted men was taken care of by the regular ship's guard. Each prisoner wore a patch of red cloth on his right leg to signify that he was a prisoner of war.

The C. P. O.'s guarding the prisoners had been torpedoed by a submarine a short time previous and bore no great love for their charges.

It was quite a jolt to their high pride to be captured by the "Yanks" and sent home by the "Yanks" on a German ship taken over by the "Yanks," but the enlisted men seemed pleased that they had been captured and their lives were at least safe. Incidentally they showed no good feelings toward their former officers. One of the men, a machinist, had formerly been a bartender in Boston and one of the officers had been engaged in business in Cincinnati some years prior to the war.

The officers were a dignified set and they seemed surprised that they were not given unusual consideration. For instance, one of them asked his guard why he did not have hot water in his room. He was not highly elated when the guard retorted, "You people built the ship, why didn't you pipe it to suit yourselves?"

The German officers dined in the Ritz-Carlton Mess Hall, where our own officers dined, but at a table set aside for them and under guard.

On April 13th, while en route to New York, we fired flat nose shells from each gun for tests. The German prisoners below thought we were firing at another of their "subs" and were much excited. The prisoners showed much interest as to what arrangements had been made for their abandoning ship, if occasion required, and did not seem any too pleased when they were informed that the same arrangements had been made for them as they had made for the lost souls on the *Lusitania*. Of course this was not literally true.

It might be mentioned that their first meal aboard this ship consisted of a favorite dish, frankfurters and sauerkraut. This was not pre-arranged, but incidentally happened to be on the menu that night.

The trip home was without further event, except for a small iceberg sighted the second day out. We arrived in Hoboken on the afternoon of the 17th, and were welcomed by the usual crowds that lined the docks. The German submarine prisoners were taken off and placed under marine guard, and thence sent down to Fort McPherson, Ga.

The German officers moved off with disdain but their enlisted men waved a cordial good-bye to the ship and her crew. This incident illustrated their phase of mind, finally culminating in the mutinies of the German sailors at Kiel and Wilhelms-hafen and effectually prevented a clashing of the German fleet and the Allied Navy.

Third Trip Overseas

Late in the afternoon of April 24th, the *Leviathan* cast off her lines once more, after a short stay of only seven days in Hoboken. The patent log, which registers the speed of the ship, was streamed from the taff-rail upon our departure and a standard speed of eighteen knots was maintained until past Ambrose Channel Light Vessel.

Troops and organizations on board were as follows:

Troops, 8,909. Men in 11th Infantry; 15th Machine Gun Battalion; Base Hospital No. 20, Female; Base Hospital No. 30, Female; 304th Field Artillery; 306th Field Artillery; 302d Supply Train of the 77th Div. N. A.; Brig. General Walter H. Gordon, 10th Infantry Brigade.

Exceptionally mild weather was encountered on the entire trip across, especially in the Gulf Stream, the temperature of the water at times running as high as 73 degrees. Numerous flying-fish and schools of Porpoise were observed from day to day. The spouting fish would cause us to keep our gaze fixed upon him. Gliding through the water he greatly resembles the wake of a periscope.

The opinion was expressed on board that this time France would be our destination. Our cargo holds were loaded to the top with all sorts of army equipment, camouflaged artillery wagons, automobile trucks, shell cases, etc. After the fourth day out the men on the bridge knew for an absolute fact, by the course steered, that we were heading for France and many of us already saw ourselves walking up the main street of Paris with a girl on each arm. Little did we know how keen our disappointment would be, for as later events proved, our views of France were to be observed from a coal barge, three long miles away from the mainland.

Occasionally a convoy of perhaps ten or twelve vessels would be sighted, hull below the horizon and just the masts visible, presenting a peculiar sight, keeping pace with us for a few hours and gradually disappearing. It was unusual for a lone ship to be sighted, for the safest method of travel was in convoy, escorted by cruisers or destroyers. Extremely precautionary methods were always taken with ships sighted without escort, a change of course usually effected to give such vessels a wide berth. They were always looked upon with suspicion by us, especially sailing vessels, for instances have been reported of German U-boats rigging up two or three sails and floating on the surface of the water to resemble harmless, slow-moving schooners.

PRECAUTIONS TAKEN

In addition to these we gave wide berth to any floating objects observed, such as barrels, spars, wooden cases, etc., for fear that these were dangerous mines. On one occasion, while in the danger zone, our starboard guns were fired on a suspicious object which later proved to be a spouting black-fish. Absolutely no chances were taken. Our motto, because of the 12,000 souls aboard, was "Safety First." A transport, especially one nearly 1,000 feet long, presents a hugh target for a U-boat, and must necessarily act on the defensive, not offensive.

Everything went well on this journey until very close to land. We were escorted by the usual destroyers and were prepared to make land fall, when the good weather we had been having was interrupted by an extremely heavy fog. Although still in the danger zone our speed was necessarily decreased. It is almost impossible to navigate in a thick fog and consequently our engines were brought almost to a standstill. Looking out on our starboard beam, through the thick fog, an object was seen to approach us. This proved to be one of our destroyers, which hove close to. Through a megaphone an officer on our bridge shouted, "We don't know where we are. Do you?" To which came the most disappointing answer, "No." Here was a ticklish situation. Floundering around in a section of water that was a hot-bed for submarines, we were all considerably on the alert. Suddenly through the thick fog, from the destroyer, came the report, "Black and white buoy on starboard beam." All breathed a sigh of relief, for that buoy signified mid-channel and that we were following a course that would lead us direct to our destination. This was a bit of clever navigation, even if we say so ourselves.

We entered the harbor of Brest, France, on the afternoon of May 2d, just as the fog lifted. Our eyes beheld a beautiful harbor, surrounded on the mainland by the prettiest green fields and old-fashioned farm-houses, with a clear sky overhead and a hot sun beating down on the deep, blue water of the Goulet. Our mooring was made to a large buoy, for in Brest there are very few docks and none large enough for a ship of our dimensions.

Hastily the disembarkation of troops and cargo was begun and simultaneously the crew turned to on the coal barges with a will, shovelling 4,600 tons of coal in the ship's bunkers within 48 hours.

The colored men from the stevedore regiments stationed at Brest, assisted materially in this work, coaling from barges on the starboard side of the ship, while two regimental bands retained on board to entertain the men filled the air with the latest "jazz" band music.

We were soon under way again leaving Brest on the evening of May 5th, bound for New York.



AEROPLANE VIEW OF BREST

BREST

Brest is a seaport in the northwest of France, department of Finisterre. It has one of the best harbors in France and is the chief station of the French marine having safe roads capable of containing 500 men-of-war in from eight to fifteen



COALING SHIP AT BREST

fathoms at low water. The entrance is narrow and rocky and the coast on both sides is well fortified. The design to make it a naval arsenal originated with Richelieu and was carried out by Duquesne and Vauban in the reign of Louis XIV, with the result that the town was made almost impregnable. Brest stands on the summit and sides of a projecting ridge, many of the streets being exceedingly steep. Several of the docks have been cut in the solid rock, and a breakwater extends far into the roadstead. The manufactures of Brest are inconsiderable, but it has an extensive trade in cereals, wine, brandy, sardines, mackerel, and colonial goods. It is connected with America by a cable terminating near Duxbury, Mass.

The English and Dutch were repulsed at Brest in 1694. In 1794 it was blockaded by Howe, who won a great victory off the coast over the French fleet.

Our escort of destroyers remained with us until the following morning, May 6th, seeing us safely through the war zone. The remainder of our voyage was accomplished at a speed of twenty knots without event of importance until arriving off Ambrose Light, the entrance to New York Harbor. Here a thick fog again delayed us, causing us to drop anchor until late in the afternoon of the same day, May 12th. The sky cleared about this time and we proceeded up the channel and to our regularly assigned berth, making fast to the dock in Hoboken at 9:28 P. M.

When the members of the crew went ashore they were subjected to excited cross-examination by many people, for rumor had decreed that we had been torpedoed and sunk with a tremendous loss of life. Of course we were not permitted to divulge any information along this line, but it was amusing to hear what interesting stories were narrated by the home-folk and it was with much satisfaction that we assured them, after the manner of Mark Twain, that the report of our deaths had been very much exaggerated.

Fourth Overseas Trip

The ship remained at her berth in Hoboken from the 12th to the 22d of May, giving the crew a reasonable amount of shore leave, the men living in nearby states thus had an opportunity to visit their homes.

At 4:03 on the afternoon of May 22d, we left on our fourth eastward bound voyage with the following troops:

Troops, 10,577. 43rd Engineers; 108th Supply Train; 131st Infantry; 318th Infantry; Base Hospital No. 13, Female; Major General A. Gronkhite, 80th Div.

We followed the regular channel in leaving New York Harbor, and once more at sea, started on our fourth venture to slip through the blockade of German U-boats and to land 10,000 more troops to assist in breaking down the high pride of the German autocracy.

On the afternoon of May 23d, at 4 P. M., while the water-tight door system was being tested, one of the Army officers accidentally had his leg caught in a closing water-tight door. These doors are hydraulically opened and shut and centrally controlled by a lever on the bridge. Prior to the closing of these doors a warning alarm is sounded, but the officer, in some unexplainable manner, became confused and suffered a severe injury.

The ship's log for the next few days showed the single entry "B," which signifies clear weather and absolutely blue sky. The sea was unusually smooth at this time, hardly a ripple appearing on the surface of the water.

"CARLTON" TORPEDOED

At 6:37 A. M., May 29th, our escort of destroyers was picked up, immediately taking up their respective positions abeam and ahead of the ship. Everything went well until 4:25 this same afternoon, when we received an S.O.S. from the *U. S. S. Carlton* that she had been torpedoed in 47° North Latitude, 11° 20" West Longitude, and upon referring to our

charts we found that we would be in that same position at 9:30 that same evening. It was advisable for us to change our course in order to steer clear of the possible cruising radius of this submarine, which we did at 5:05, heading our course to the north. At 10:45 P. M., after passing the approximate position of the sinking of the *Carlton*, we resumed our direct course for Brest. During this time signals were exchanged between us and our escort upon the advisability of sending one of our escorting destroyers to the assistance of the *Carlton*, but owing to the great value of our own ship and its precious cargo aboard this was deemed inadvisable. This illustrates what stern measures necessarily had to be taken in time of war. We were compelled to leave the crew of a torpedoed ship presumably to their fate for the greater duty involved upon us. However, later reports showed that the crew of the *Carlton* had been rescued by one of the alert destroyers patrolling the seas in this vicinity.

We did not consider all danger past and as an extra precaution, orders were issued on board to have all men assigned to duty on life-boats and similar duties, remain at their stations until further orders. This vigil continued throughout the night. It was a clear moonlight night, but moonlight held no charm for us then. The rays reflecting upon the water lighted up the huge ship and made her a fine target for a lurking U-boat.

ENGAGEMENT WITH SUBMARINE

Communication made with Brest the next morning, May 30th, informed us that the pilot and pilot destroyer would meet us. However, for a very good reason we did not pick up a pilot, for on this date, which has proven memorable in the history of the *Leviathan*, "Fritz" did his best to make it a Memorial Day for the *Leviathan* and a Decoration Day for himself. On the spot that we expected to take our pilot on board we had our first real engagement with the pirates of the sea. With the hills of Brest plainly visible on our port bow, the smooth surface of the water was broken by

the wake of a periscope on our port quarter. The following entry was made in the ship's log:

12:29 P. M.—Sighted submarine pursuing us on our port quarter, about 1,500 yards distant. Ordered full speed, 165 revolutions. Opened fire with Number Six and Number Eight guns, three shots. Stopped zig-zagging. Changed course 12:40 P. M.

12:59 P. M.—Submarine appeared again. Opened fire with Number Six and Number Eight guns. Nine shots.

1:19 P. M.—Submarine appeared again. Opened fire with Number Six and Number Eight guns. Seven shots.

1:34 P. M.—Threw in manœuvering combination. Standard speed 112 revolutions.

1:45 P. M.—Entering harbor at various courses and speeds.

It was the general opinion among the officers on board that a cordon of U-boats had been lying in wait, located in such a manner that if the first submarine failed in her attempt to torpedo us, the others in turn would be in a position to follow up the attack.

During one attack a French fishing boat appeared between us and our object of fire, and had a very narrow escape from being struck by one of our 105 pound explosive shells. The skipper of this boat was taken on board later. He said he clearly saw the "sub" we were firing at.

The coolness of our commanding officer, Capt. H. F. Bryan, and the splendid co-ordination of the entire crew, were so perfect, that only three distinct orders were issued in this moment of peril, as follows: 1. Hold your course. 2. Open fire on submarine, port quarter. 3. Sound General Alarm.

Every shot fired was greeted by cheers and shouts of encouragement from the enthusiastic soldiers on the decks, who crowded to favorable positions to witness the accurate firing of our gun-crews. The Army Nurses left their luncheon to take a peek at the "fun," and their calmness and enthusiasm in the face of a deadly menace were an inspiration to the sailors manning the big guns. An apt comparison to this battle would

be the excitement incidental to a World Series baseball game, eleven innings, score: 0-0, and a home-run hit made. Wow!

After the attack no evidence was noted of any of the "subs" having been sunk, such as oil or scum or floating bits of wreckage. Of course, we did not turn around or stop to look for this evidence, but inasmuch as none of the enemy was allowed within torpedo range or cared to show himself again, he certainly must have taken the accuracy of our gun-fire into serious consideration.

A disadvantage of our freedom of the press was typically demonstrated in the U. S. at this time, for the leading newspapers contained all sorts of misleading accounts, full of far-fetched descriptions of the attack. One paper stated that twenty U-boats had attacked the *Leviathan* and that we had evaded a school of torpedoes. The exact number of submarines encountered on this day is not known, but it is believed that there were at least three, and very probably more.

We had a narrow escape though, for just after the first submarine was sighted, at 12:29 mid-day, our zigzag clock on the bridge rang, 12:30, notifying us to make an abrupt change of course to port. If this change had been made the "sub" would have had us broadside on and our entire length would have been exposed to torpedo attack. Captain Bryan saw this immediately and issued the above-mentioned order to hold the course.

Arriving in Brest after all this excitement the ship was made fast to our usual mooring buoy. The crew as before, turned to on the coal barges and inspired by the enthusiasm and excitement and experience of that morning, heaved the necessary amount of coal, 4,500 tons, into the bunkers in record time. The big ship had discharged its living cargo of thousands of troops, hundreds of officers and many passengers, had sent loads of stores to the grim destroyers, including thousands of bags of welcome mail from the folks at home and then proceeded to sea inspired with the hopes and desires of clashing with the submarine that had sunk the *President Lincoln* the day before. "Up and at 'em" was our slogan.

SECOND SUBMARINE FIGHT

We sailed out of Brest late in the afternoon of June 1st, having on board many notable passengers. The destroyers *Nicholson* and *Wadsworth*, two of our most famous sea-fighters, accompanied us. All hands were set for another attack. It was not long in coming. At 7:16 P. M. this same evening, the wake of a periscope was observed on the starboard quarter by Lieutenant Haltnorth, who quickly passed the word to the bridge where it was received by Lieutenant J. J. Jones, the Officer of the deck. A hurried message was sent in to the commanding Officer and at the same time the general alarm was sounded. The fire-control officer on the upper-structure took a prompt and accurate range on the hissing white menace of foam approaching so balefully in the wake of the setting sun. A few short seconds passed, the arrow on the engine room dial plate spun around to "full speed ahead," and the whirr of the electric warnings quickened the ears of the officers and men on watch in the fire-rooms. The furnace doors flew open and in the streaming light with bent backs and broad shoulders, sturdy young Americans poured coal into the great fires.

A volume of thick black smoke issued from the funnels and at the same time number seven gun with a venomous roar, let go a shell of TNT, enveloped in lurid flame and smoke. Number five gun got busy. The breech-plug closed noiselessly, sharp click, the primer inserted accurately by the gun-captain, a smooth "Ready" from his lips, and number five gun hurled a shell of high explosive to blot out from the sea-scape one of the under-sea Hun boats.

Number seven gun shot again with a reverberating roar, followed again by number five, the only two guns that could bear upon the Prussian menace.

From the signal-bridge, a green and white submarine warning flag was fluttering and the destroyers *Nicholson* and *Wadsworth*, with their inboard sides awash, turned in a quick endeavor to charge the on-coming "sub." The *Nicholson* was nearer and in few minutes number five and seven guns

The Sunset Prayer at Sea

(Offered Every Evening at Sea by the Ship's Chaplain).

THOU, O Lord, art in the midst of us, and Thine holy name is called upon by us; leave us not, O Lord our God.

O Lord, hear our prayer; and let our cry come unto Thee.

Remember, O most gracious Virgin Mother, Star of the Sea, that never was it known that anyone who fled to thy protection, implored thy aid and sought thy intercession, was left unaided. Inspired with this confidence, we fly to thee, O Virgin of Virgins, our Mother, to thee we come; before thee we stand, sinful and sorrowful. O Mother of the Word Incarnate, despise not our petition; but in thy clemency hear and answer us. Amen.

O Lord, save us waking, watch us sleeping that we may wake with Christ and rest in peace.

Visit, we beseech Thee, O Lord, our distant homes and families; Thine angels guard them with Thy peace and benediction. Bless this ship we beseech Thee and drive far from it all the snares of the enemy; guide it upon a tranquil course unto the wished-for-haven—guard our Captain, his officers and crew, and the soldier-troops and passengers committed to their care; let Thy holy angels dwell hereon to keep us in peace and let Thy blessing be always upon us. Through Jesus Christ, Thy Son, Our Lord.

Into Thy hands, O Lord, we commend ourselves.

Vouchsafe, O Lord, this night to keep us without harm.

May the Lord Almighty grant us a quiet night and a perfect end. May the Almighty and merciful Lord, the Father, the Son and the Holy Ghost bless and preserve us all. Amen.

ceased firing, for the *Nicholson* was in direct range between our ship and the submarine, with huge volumes of black smoke pouring out of her funnels. The *Nicholson* made a circuit around the "sub" which had submerged and promptly and accurately laid a beautiful barrage of sixteen depth bombs all around the place of disappearance. The explosions from these depth charges shook the big *Leviathan*, nearly two miles away by this time. The *Nicholson*, her blinker lights flashing fitfully through the smoke clouds reported, "We saw periscope of submarine and laid barrage of depth charges around the spot. We will report to our Force Commander."

The *Wadsworth* had by this time plowed her way up through the seas, but the Prussian terror of the deep had not taken too kindly to the overtures of friendship made by the *Nicholson*; and the *Wadsworth* signaled back to the *Leviathan*, "We see no submarine now." Both gallant destroyers quickly turned and resumed their arduous duty of escorting the fast-moving *Leviathan*. Smoke was pouring from their funnels and a choppy sea made them bob up and down. A cloud of "V" shaped spray sparkled in the twilight as they circled in and out off the port and starboard bow of the queen of the transports.

Twilight in the western sky deepened into long shadows upon the water. The chaplain of the ship walked out to the windward side of the navigation bridge and offered the customary sunset prayer for the huge ship with its women and children passengers, its captain, officers and crew. This custom of evening prayer was practiced on board every evening at sunset and prefaced the silent evening prayers of the seamen on the decks, the gun-crew at the guns, the signal boys on the bridge, the quartermaster at the wheel and the brawny-chested firemen who stoked the big furnaces below. In the war-zone none of these brave lads were certain of seeing another sunrise, so before the ship was plunged into darkness each night they offered up, while at their different duties and stations, heartfelt prayers for themselves and their people and loved ones at home.

The ship pursued her course steadily during the night watches and the men relieved one another at midnight and at 4 A. M. The morning sun broke clear and clean over the eastern horizon and discovered to us that our gallant destroyers had left us during the darkness, proceeding by pre-arranged plan to a similar duty of escorting an east-bound transport loaded with troops. Our voyage continued without further excitement at a speed of twenty and a half knots. We arrived in New York the morning of June 8th and made fast to the dock with little difficulty. No sooner had our gangplank touched the dock than our mail clerk was seen heavily laden with eagerly-sought-for mail.

Fifth Trip Overseas

Eight days was ample time to give half the crew a five-day leave, and five days' leave gave many of the boys who lived within traveling distance of New York, an opportunity to see home again for a few days. It was at this time that the one-third fare rate was put into effect for soldiers and sailors on furlough and it is needless to say this greatly assisted many boys who did not have the full fare to reach home.

By evening, June 14th, all necessary supplies were loaded in our holds. Our quota of troops, this trip were as per the following list:

Troops, 10,423; 32d Engineers; 145th Infantry; 146th Infantry; 134th Machine Gun Battalion; 135th Machine Gun Battalion; Major General C. S. Farnsworth.

For thirty-six hours after leaving Ambrose Channel Light Ship, just outside of New York, we were escorted by one destroyer, submarines were busily engaged off our coast-line these days. After the destroyer left us we continued on our voyage in the customary manner, holding abandon ship drills each day and operating the water-tight door system to insure its being in perfect working order. The weather was extremely warm and as a consequence it was found necessary to allow

the soldiers from the lower compartments to sleep on the outer decks.

On the 17th, at ten minutes to eleven in the morning, the *Leviathan* acted queerly, circling around in the smooth sea, which aroused the curiosity of all on board. This circling was caused by the steering apparatus going out of commission, but it was soon repaired.

We certainly expected to see more of "Fritz" than ever on this voyage, but not a solitary event occurred outside the daily routine. Brest, France, was reached on the morning of the 21st, troops and cargo were disembarked and we headed for sea once more on the 24th accompanied by four destroyers.

The return trip was interrupted once. The destroyers had left us after a day's journey and no sooner had they done so when our gun-crews opened fire on a suspicious object astern of us. The destroyers by this time were on the horizon and hearing the firing of our guns proceeded to join us once more. Both number five and seven guns fired nine shots at the object sighted which disappeared immediately and we signaled to our destroyers that everything was O. K. and that we could proceed once more unescorted.

The weather for the remainder of the voyage was excellent. Fire Island Light Ship, which is thirty-two miles from Ambrose Channel, was sighted July 1st and in a few hours we were tied up at our pier in Hoboken with another trip to our credit.

Sixth Trip Eastbound

Another eight days in New York and another five-day leave for the men of the crew. The five-day leaves were most welcome after a trip of seventeen or eighteen days at sea especially when the days consist of vigilant activity and high tension. The five days soon passed and as soon as we were provided with sufficient supplies of coal and water our troops came aboard.

Troops, 10,534; 313th Infantry; 314th Infantry; 311th Machine Gun Battalion; 310th Machine Gun Battalion; Base

Hospital No. 67; Base Hospital No. 68; Base Hospital No. 7; Base Hospital No. 47; 304th Field Signal Battalion; Brig. General Wm. J. Nicholson, 79th Div.

We left for our sixth voyage across on July 8th at 6:30 P. M., and by nightfall we were well out to sea escorted by the destroyer *Walke* which left us the next morning. On the eight to twelve watch that morning we passed a considerable amount of wreckage, probably the result of submarine activities off our coast. Abandon ship drills were held as usual. The weather was fair and warm and a few soldiers were overcome by the heat making it necessary for the troops in some compartments to sleep on deck at night.

The *U. S. S. Covington* had been sunk by an unseen submarine just prior to our sailing, and with this fresh in our memory it was not necessary to remind the lookouts and gun crews to be especially vigilant and keep a sharp lookout at all times. We sighted our escort of destroyers at 8 A. M., on July 14th and passing through the danger zone safely, we anchored in Brest at 1:50 P. M., July 15th, one of the hottest days we had ever experienced.

With all troops sent ashore and all cargo taken off we embarked our usual quota of passengers and left Brest at three o'clock on the afternoon of July 18th. We had 115 wounded soldiers on board, also the captain and officers of the *U. S. S. Covington* and the officers and crew of the *S. S. Buffalo* that had been sunk by submarines. We left with a convoy of four destroyers that stayed with us until noon the next day. The weather was good for the most part and the trip was made without trouble or excitement of any kind. The wounded soldiers were a cheerful lot and were well cared for. Some had been gased, other lost limbs, but the prospect of home made them all happy.

McGONIGLE

Among our wounded soldiers was a man named McGonigle who had made the first overseas trip with the first batch of

troops the *Leviathan* carried across. We landed them in Liverpool.

McGonigle belonged to a bombing squad and was wounded. His squad was in a shell hole hurling bombs into the enemy trenches for thirty-six hours. The men were tired and hungry. The Sergeant in charge was giving instructions to the men when a bomb held in the hands of McGonigle exploded blowing off both of his hands and inflicting other minor wounds including the amputation of the great toe of his left foot. Four of his comrades, including the sergeant, was killed by this explosion.

During our westbound trip an entertainment was given for the benefit of the wounded. During a lull between acts McGonigle stood up, and holding up both remaining parts of his arms said he would give a short stump speech. He then told of his accident and was glad to be going back on the ship that took him over, and on which ship he, with sixty other members of his company had volunteered to help the firemen in the fire room. He said he was one of us, a "gob," for he had helped "deliver the goods."

July 25th, at nine o'clock we passed Ambrose Light Ship and by 11:30 we were tied to our pier.

Seventh Voyage Overseas

With the following troops and passengers on board we left New York at 3:25 P. M., August 3rd:

Troops, 10,893; 55th Infantry; 56th Infantry; 20th Machine Gun Battalion; 36th Div. Displacement Det.; 111th Trench Motor Battery; 88th Div. School Det.; July Auto Replacement Draft; Colonel W. O. Johnson, 56th Inf.

For the first time in the history of the ship we now traveled with other transports—the *Great Northern* and *Northern Pacific*, sister ships from the Pacific coast. These could speed along with us only in smooth water. In turbulent seas they dropped rapidly astern. The *Great Northern* reached New York one hour ahead of the *Leviathan* on one trip, but traveled 700 miles less to do so.

One of our latest destroyers accompanied the convoy for the next twenty-four hours and then the three ships traveled unescorted, in beam-to-beam formation. The weather remained fair for the first four days during which time usual abandon ship drills were held.

On the fifth day, however, we had some rough experiences. A storm broke, the waves rolled high and beat the ships fiercely. It was mid-summer and we were in the Gulf Stream yet the storm was a "whopper." To add to the excitement the *Northern Pacific* reported "man overboard," by a signal from her bridge. Immediately all three ships went into manœuvering formation and circled around the spot. The man overboard was a soldier. It was suicide with him though, for he left a letter of explanation. While circling around in an attempt to pick him up another man from the *Northern Pacific* went overboard. This was an unfortunate accident. Life buoys were dropped into the high-rolling seas for the lost men, and for an hour and a half we manœuvered around in an attempt to pick these men up, but it was useless. No one could stay afloat in that sea. The *Northern Pacific* and *Great Northern* both reported that they could make little headway and finally when the search for the missing men was given up we found it necessary to reduce speed so that the other ships in our convoy could remain in line with us.

The destroyers were picked up on the morning of August 10th and we passed through the war zone without trouble or excitement and anchored in Brest at 10 A. M., August 11th.

Forty-eight hours later we were steaming on our west-bound voyage again, the *Great Northern* and *Northern Pacific* being with us. The weather was fine and we made good speed. On the 14th, at 9 A. M., a submarine was sighted on our star-board quarter between our ship and the *Northern Pacific*, but it was not fired at, nor did it attempt to do any damage. It might have been a submarine of the Allies. The destroyers left us this same evening and with fair weather and smooth seas, which were fully appreciated, we made Ambrose Channel on August 20th and docked soon afterwards.

Eighth Overseas Voyage

The following is an extract copy of the readings in the ship's log upon our leaving New York for the eighth trip overseas. This was on the 31st of August and for the second time the transports *Great Northern* and *Northern Pacific* accompanied us.

SHIP'S LOG

The ship's log August 31st, 1918, Meridian to 4 P. M.

Draft—Ford. 42' 0", Aft. 40' 10"—Mean 41' 5".

1:19 P. M. Hauled out F. deck gangway.

1:26 P. M. Let go all lines.

1:40 P. M. Started astern.

1:47 P. M. All clear of dock.

2:06 P. M. Passed Statue of Liberty.

2:48 P. M. Passed Governor's Island.

3:08 P. M. Passed Robbins Reef.

3:15 P. M. Passed Staten Island.

3:38 P. M. Entered Ambrose Channel.

3:59 P. M. Passed Romer Shoal.

4 P. M. to 8 P. M.

4:25 P. M. Passed fairway buoy.

4:38 P. M. Stopped to discharge pilot and put paravanes over.

4:44 P. M. Proceeded.

4:57 P. M. Ambrose Channel Light Vessel abeam.

5:12 P. M. Standard speed 130 revolutions.

5:29 P. M. C/c (change course).

5:51 P. M. Increased speed to 150 revolutions.

4-5 P. M. Ave. rev. all shafts 78.1, steam 220 lbs., injection 70.

5-6 P. M. Ave. rev. all shafts 121.2, steam 220 lbs., injection 74.

6-7 P. M. Ave. rev. all shafts 140.3, steam 215 lbs., injection 72.

6:45 P. M. Commenced zig-zag.

8 P. M. TO MIDNIGHT

8:30 P. M. Stopped zigzagging.

10:15 P. M. Cut out boiler No. 3 in No. 2 fireroom and No. 7 in No. 4 fireroom.

8-9 P. M. Ave. 2 rev. all shafts 150.1, steam 215 lbs.

9-10 P. M. Ave. 2 rev. all shafts 150.0, steam 215 lbs.

10-11 P. M. Ave. 2 rev. all shafts 150.1, steam 215 lbs.

11-12 P. M. Ave. 2 rev. all shafts 149.9, steam 215 lbs.

Troops, 10,541; 142d Field Artillery; Evacuation Hospital No. 16; Base Hospital No. 54, Female; Base Hospital No. 63; Base Hospital No. 81; Base Hospital No. 82; Infantry Auto Replacement Draft; 59th Pioneer Infantry; 808th Pioneer Infantry; Colonel Wm. G. Ownbey.

Upon our reaching Sandy Hook the pilot boat approached and launched a small row boat which made for our gangway. This boat came to get the pilot who had seen us safely through the channel, and to take him to another ship coming into New York. Pilot McLoughlin waved good-bye to the troops on board and was cheered as he left.

Immediately before proceeding to sea the paravanes were lowered over the ship's side. The paravanes are ingenious torpedo-shaped contrivances so constructed as to fend off from the ship's side dangerous floating objects such as mines. The upper section of a paravane is equipped with a jaw-shaped arrangement, so made as to clip the cable extending between a mine and its anchor. The "P. V.'s," as they are sometimes called, are launched over the side from the forward part of the vessel and while in the water are supported by a wire cable from the deck of the ship and by a heavy chain extending upward from the keel.

We were now fully set and ready for our voyage, the *Great Northern* taking up a position on our starboard beam and the *Northern Pacific* on our port beam. The three ships in line presented a formidable appearance as they plowed the smooth seas at a rate of twenty knots per hour. Zigzag plans were communicated to the *Great Northern* and *Northern Pacific* by the *Leviathan*, the senior ship, and from dawn to dark on this day and every day thereafter until reaching port all three ships, upon the ringing of the zigzag clock, sheered off simultaneously, first to port, then to starboard, then to port again, the zigzag pennant on our yard-arm dipping as each change of course was made.

On September 2d, the Captain of the *Great Northern* signaled to us that his aft gun crew had sighted the feather of a periscope about two miles astern of us, which had disappeared almost immediately and so no shots were fired at her.

A few days later, through signals exchanged between ourselves and the *Great Northern*, we learned that we were to lose Captain Bryan upon reaching New York, and that Captain Phelps of the *Great Northern* was to be his successor. Captain Bryan, we learned, was to take up a station somewhere in Brazil.

Stormy weather hindered our progress on the fourth day out. The seas were so heavy that both the *Great Northern* and *Northern Pacific* found great difficulty in keeping up with us. finally, the *Northern Pacific* signaled to us that because of the seas she could make little progress and asked that the standard speed for the convoy be reduced to thirteen knots. This was granted and for fourteen hours the three ships labored in the heavy seas, spray breaking over the fo'castle and reaching to our forward smoke-stack. Toward evening the sea moderated sufficiently to allow the *Great Northern* and *Northern Pacific* to increase speed to sixteen and a half knots and then to twenty knots, until we picked up our escort of four destroyers at the ocean rendezvous.

All seven ships proceeded to Brest by the shortest route and in a fairly smooth sea. The *Leviathan* was shaken by an extremely heavy explosion and its suddenness surprised the men. The Chief Engineer reported everything O.K. down below and as far as we could see on deck there was nothing wrong with the ship; then the blinker light on the destroyer *McDougal* directly abeam of us, was observed flashing a message to us, which explained everything. The *McDougal* had accidentally dropped a depth charge from her stern. It wasn't the first false alarm we had had and it was not to be the last.

Land was sighted on the afternoon of September 7th, and swiftly and smoothly the three transports ran into column formation, with the destroyers abeam and ahead of us, steaming majestically into the harbor of Brest. Looking around after mooring we saw the huge transport *Mt. Vernon*, formerly the German liner *Kronprinzessin Cecilie*, lying in dry dock after running a 250-mile race against threatened disaster. She had been torpedoed at eight o'clock the night before and only the gallantry of her captain and crew, and the efficient

T H E U. S. S. L E V I A T H A N

system of water-tight doors, enabled her to make port at a speed of fifteen knots. It was indeed remarkable that we had escaped seeing "subs" the day before, for our course was almost identical with that of the *Mt. Vernon's*. The *Mt. Vernon* was repaired and thereafter made two round trips to America and did its "bit" in bringing our soldier boys home.

To give the reader a fair idea of the ship's routine on entering Brest and while coaling in the harbor, we again quote from the log of the ship:

6 P. M. TO 8 P. M.

6:05 P. M. Pt Du Minou abeam.

6:10 P. M. Mengam lighthouse abeam.

6:20 P. M. Pte Du Portzic lighthouse abeam.

6:27 P. M. Harbor pilot came aboard, proceeded to buoy.

6:30 P. M. Advanced clocks one hour. Engines working as required.

8 P. M. TO MIDNIGHT

8:02 P. M. Arrived at buoy; proceeded to moor ship.

8:33 P. M. Ship moored and engines secured.

8:36 P. M. Secured steering engines.

Draft on arrival 36.7" forward, 39.5" aft.

Mooring bearings—Pte du Petite Minou, 258½°; Pte de l'Île Longue, 191.5°; Pt du Portzic, 278.50.

9:00 P. M. Commenced to unload cargo; continued throughout watch. Lighter *Knickerbocker* placed coaling stages on port and starboard sides.

12:00 Midnight. Three lighters with coal arrived alongside.

Coaling until 4 A. M.

1:15 A. M. Commenced coaling on starboard side.

1:30 A. M. Commenced coaling on port side.

Discharging cargo throughout watch.

4 TO 8 A. M.

Continued coaling and discharging cargo.

The disembarkation of troops and cargo was completed in short order and the *Leviathan* put to sea once more on the 12th of September. The bodies of thirty-six victims of the *Mt.*

Vernon were on board, each body being draped with the flag which they had heroically died for. These thirty-six victims were trapped in the fire-room of the *Mt. Vernon* when the torpedo struck her and they had no chance to escape before the water filled the lower compartments. The loss of life would not have been so great had not the ship been torpedoed at a time when the fire-room watches were being relieved, for at such time there are almost double the number of men in the fire-rooms.

Our voyage back was interrupted but once. The *Great Northern* on our starboard, on the 13th of September, reported a periscope two miles astern of us and traveling to the southward. It disappeared almost as quickly as the periscope encountered on the eastern trip, and consequently no shots were fired at it. A vigilant watch maintained by the lookouts was without result, the submarine did not show itself again. On the 19th of September we were safe in New York Harbor and docked six minutes after the first line was ashore, a record achievement in the log of the capable and efficient docking superintendent, Capt. Walter J. Bernard.

Ninth Overseas Trip

We left our pier at Hoboken, September 29th and our ninth voyage overseas was underway. The following troops were on board:

Troops, 9,366; 57th Pioneer Infantry; September Auto Replacements Drafts from Camps McArthur, Humphreys, Hancock and Jackson; Medical Replacement, No. 73; 401st Pontoon Train; 467th Pontoon Train; 468th Pontoon Train; Water Tank Train No. 302; 323rd Field Signal Battalion; Base Hospitals No. 60 and 62, Female; Debarking and Billet Party 31st Div.; Major General Leroy S. Lyon, C. G. 31st Div.

Under clear skies we steamed slowly through the big harbor filled with shipping and proceeded straight to sea, stopping only to drop our pilot, Capt. McLaughlin, of the *Sandy*

Hook Pilot Association and who always piloted the *Leviathan* in and out of New York Harbor. This trip overseas was to be made memorable by reason of the Army epidemic of influenza on board. Many men and several nurses were obliged to leave the ship just before we cast off our lines and everyone felt that we would have a distressing time going over. While the embarkation troops were lined up on the big pier some of the men dropped helpless on the dock. We were informed that a number of men had fallen by the wayside, limp and listless, on their march from the camp to the scene of transportation. Our first death was recorded the next day out. He was a sailor who did duty in the Hospital Corps. He told the chaplain that he did not want to die because of the great need of his help at home. Out of over two thousand cases of influenza and pneumonia on board, this first case and two naval passengers en route to duty in France, were the only ones to die from the Navy. All the other deaths belonged to the Army, 96 in all.

This was not a bad percentage considering the total number of cases stricken, the hardships and restrictions, the weather conditions, the intense nervous strain in the war zone and the tremendous rolling of the big ship while in the storm. Very few people in the sick spaces got much sleep. Everybody helped during the terrible plague. There was work for all. It was pitiful to see men toppling over dead at your feet. It was like some invisible hand reaching out and suddenly taking them away. It was truly sad and depressing.

The standing lights in the big spaces of the ship were kept dim behind colored glass. Not a light was ever visible from the ship at night and this perfect control of the huge and vast electric circuit of the ship affords a well merited tribute to the officer in charge. Officers on the *Great Northern* and *Northern Pacific* as well as of the escort of destroyers who were always with us in the dreaded war zone, complimented us upon the *Leviathan's* complete obscuration or darkening of ship. Only once did a light ever show from the big ship and that happened to shine from the room of the officer of the deck who was on duty on the bridge. He had sent a

messenger to his room for his raincoat and the boy turned on the light to find his way about the dark room and returning to the bridge in a hurry forgot to extinguish the light. A sharp eyed and vigilant destroyer promptly flashed over a warning signal and the light was extinguished.

Rules and prohibitions were minute and precise and were always strictly enforced. A lighted cigarette upon a dark deck high in the air may be seen a half a mile at sea and thus would enable an enemy submarine to radio a lookout warning to another "sub" lying in wait ahead. These pests of the deep generally worked in pairs. To show how strict the rules were one man was court martialed and sent to prison, an officer was court martialed and reduced, and an army chaplain, who was assisting the chaplain of the ship in administering to the dying, was threatened with court-martial because he had opened a port slightly in response to a dying soldier's request for air. These penalties may appear to be unduly harsh, but where the safety of thousands depends upon the minute obedience of the individual why "the punishment fits the crime."

The army nurses were like ministering angels during that dreadful scourge. They were brave American girls who had left home and comfort in order to undergo peril and sacrifice abroad. Surely they have earned a place in Heaven. The bluejackets on board were second to the nurses in their unwearying patience and generous self-denial. When the army nurses left the ship in Brest, they wept and bade the sailors an affectionate good-bye.

BURIAL OF THE DEAD

Upon our arrival in Brest we had on board 96 dead soldiers and three sailors. 58 of the former were buried in France, 33 were brought back to the States and seven were buried at sea in the war zone on the morning after we left Brest. We remained in Brest three days and left on the third evening at 5:30 P. M. The next morning at sunrise, after an imposing prayer by the chaplain, the flag was half-masted, taps were sounded, three volleys fired and the coffins containing the

bodies of the dead soldiers were lowered gently into the sea. The ship was speeding at 21½ knots.

After seven days of mostly fair weather and without trouble from submarines, we docked in New York on the morning of October 16th. It was a nerve-racking voyage and we were all greatly relieved that the trip was over.

Tenth Overseas Trip

At 11:10 of the morning of October 27th we left New York bound overseas for the tenth and last trip. We had no idea that this was to be our last run of the German blockade with our precious cargo of Yankee doughboys. On this trip we carried the Tank Corps, who had for their motto: "Treat 'em rough!"

Troops, 8,123; Adv. School 8th Division; Casual Companies A, B, C, 487, 488, 489, 490; Tank Corps; 335th Btn. Tank Corps.; Adv. Debarking and Billet Group 8th Division; 336th Btn. Tank Corps; 337th Btn. Tank Corps; Attached Medical Personnel; Base Hospital No. 103; 540th Service Btn.; October Auto Repl. Draft Camp Gordon; Casual Co. No. 452; Base Hospital No. 106; Surgical Group No. 4; Colonel M. A. Elliott, 8th Division.

There had been rumors of peace while we were in New York and we had a sort of hunch that the war could not last much longer. The boys that we were taking over on this trip expressed disappointment, for they, too, had the same hunch, and regretted that they would never reach the front before the Armistice was signed.

On this trip we did not go to France, but to Liverpool instead, and as the ship needed certain repairs that would require drydocking we landed our soldiers in England. The trip was without any particular excitement and when we met our escort of destroyers they signaled that all German "subs" in that area had been recalled on October 21st. However, we took no chances and our gun crews remained at their posts as

usual and were as vigilant as ever. November 3rd we were in Liverpool. On going into the channel a dense fog enveloped the river and we were obliged to go ahead at a low speed with the result that the tide receded before we could tie up to the landing stage and we were stuck in the mud for about seven hours.

While thus stranded we landed most of our troops and at midnight we were tied up at the landing stage. Next morning, we went into drydock. While we were in drydock the Armistice was signed and then—oh boy—we celebrated.

We were allowed liberty from 1 P. M. on that day and immediately the “gobs” and doughboys started for the main part of the city and mingled with the great crowds who paraded, held impromptu meetings and generally “went wild.” The celebration continued for nearly a week and the American soldiers and sailors participated with great spirit.

Thanksgiving day found us still in drydock and this was another big day for our crew, for a football game had been previously arranged between the army engineers and our crew and everyone was keyed up to the highest pitch.

Practice was held for two weeks on a cinder field adjoining the drydock yards. It was found necessary to have our football togs made in Liverpool by a woman dressmaker, as no sporting goods store carried them. Thanksgiving day came. There was a grand and glorious dinner and then we all proceeded to Everton Football Field in Liverpool which is credited with being the best field in England. It had been raining all day—usual Liverpool weather—a steady downpour and the field was muddy and slow. On one side of the field were the sailor rooters and on the other side the soldiers. Two bands enlivened proceedings. The first quarter ended 0—0 and through a hard and cleanly fought game the teams battled to a tie, 0—0. The navy team had made a remarkable showing and considering circumstances did well in preventing the army from scoring. The *Leviathan* boys had not practiced as long as the army, who had been playing all season, and furthermore the army had at least 8,000 men to pick from while the navy had but 2,000.

T H E U. S. S. L E V I A T H A N

Credit must be given to Lt. R. H. Jones, who coached the team and its success was greatly due to his hard work.

Several English newspaper men were present to witness and report the game. Following is an account of the game from their viewpoint:

A demonstration of the nearest approach to actual warfare was given this afternoon at Everton Field by the American blue-jackets of the *Leviathan* and the American Army Engineers of Knotty Ash. The game greatly differs from the English rugby and is the nearest thing to warfare that we have ever seen. We were greatly surprised that there were not more casualties than there were, for the opposing teams went at each other as though they were deadly enemies about to destroy each other by brute force.

On Thanksgiving evening various dances and receptions were held for the Americans in Liverpool by the people of that city, and though we were 3,000 miles from the States we had a most enjoyable time. We certainly had lots to be thankful for.

On December 2nd we began to take on wounded soldiers that had been in hospitals in England and were waiting transportation to the States. We left Liverpool on December 4th, at 11 A. M., for Brest, France. We arrived in Brest the next morning at 11 A. M. and immediately started to coal ship and take on troops. This required three days and on December 8th at 2 P. M. we left France with our first load of home-going troops; they certainly were a happy lot of men. On the way over we encountered occasional rough weather, but this did not prevent us from speeding up and we arrived at Sandy Hook on December 15th where we anchored for the night owing to a dense fog.

As we made our way up the channel the next morning a great reception was given the troops on board. Our coming had been flashed by wireless and was heralded by all the newspapers. Numerous boats came out to meet us and bells and sirens rent the air. It was a typical New York welcome—big and hearty.

There were tears of gladness in the eyes of many of the soldiers on that frosty morning. It was the first time that

they had seen their own land in many months and this coupled with the deep feeling and spirit manifested by the people for the returned heroes, touched all hearts. Just one year from the date that we started our first trip overseas, we had brought back some of the first returning troops of the war. We tied up to our pier at 8 A. M. and the next day a leave party of half the ship's company left for a ten-day leave over Christmas.

Christmas Aboard the Leviathan—1918

Four days after our arrival in New York the crew was paid and it was suggested that we have a Christmas party on board ship for as many orphans as could be taken care of. The idea met with unanimous approval and as each man was paid he donated as much as he could afford. The amount collected was sufficient to take care of 1,200 homeless children. Notices were sent to different orphan asylums and on Christmas morning the happy children came aboard for a good day's fun.

The children were shown over the ship and a number who went on exploring tours of their own came to grief, tumbling out of stacks and ventilators and as black as the ace of spades. But that did not matter, it was all in their day's fun and when dinner time came and the bugler sounded mess call they did not have to be informed what the call meant. They knew it was for dinner, why bless me, hadn't they smelt the odor of roast turkey all over the ship. The dinner consisted of turkey, candied sweet potatoes, asparagus, celery, peas, cake, apples, oranges and bananas, milk, cocoa, and ice cream of three different kinds. All of this was prepared in the ship's galley by the ship's cooks and bakers and was a great compliment to their efficiency. But they enjoyed preparing it, you bet they did. After the children had eaten everything in sight and pocketed what was left, the mess hall was cleared of tables and benches and all the children gathered around the giant Christmas tree to receive a present. There was a Santa Claus, some say it was one of our chief petty officers, but most of us, the



CHILDREN'S CHRISTMAS PARTY

children most of all, believe he was the original St. Nick himself, for he certainly was generous with his presents. There was more than enough to go around—many of the children received two presents.

The children were rounded up at 4 o'clock. As the time neared for one group of boys to depart it was found that two were missing and after an hour's search they were found in the main engine room being entertained by the men on watch.

When the children had gone the sailors came in for their presents. Each man aboard received a bag from the Red Cross. The bags contained candy, cigarettes, pipes and tobacco and were donated by individual women from all over the country. The gifts were greatly appreciated by the "gobs," one of whom voiced the sentiments of all on board by exclaiming that the Red Cross, take it from him, was "some Santa Claus."

Part III

REPORTS OF OFFICERS AND DEPARTMENT CHIEFS

Notes on Handling the U. S. S. "Leviathan"

By CAPTAIN WILLIAM W. PHELPS, U. S. NAVY

The power to drive the *Leviathan* is distributed into turbines driving the four propellers. In the open sea the steam is distributed in what we call the high pressure cruising combination, whereby the turbines operate at their highest economy. But in this combination the engines cannot be thrown back instantly, so that in the open ocean in considering her safety and manœuvring, the rudder effect only can be relied upon. She must be considered as having no backing effect. For leaving port, entering port and manœuvring about the dock or about the anchorage, there is thrown in what is called the manœuvring combination. In this combination the highest speed the ship is capable of is sixteen knots ahead, and the combination permits steam to be thrown into the backing turbines. When there is little or no wind the ship steers very well. When it blows strong on the beam or on the quarter, the enormous area of the ship's freeboard makes her act like a catboat, she wants to fly up into the wind. She requires a weather helm, or to put it in modern language, a lee rudder. She will turn very quickly into the wind, but she will turn away from the wind only slowly and reluctantly. Consequently we always dislike going into New York or out of New York in a gale of wind, where the restricted channel requires prompt and accurate turning of the ship. Under normal conditions the manœuvring of the ship with her propellers, in spite of her great length of 954 feet, is all that can be desired.

NEW YORK HARBOR

Ambrose Channel is dredged to forty feet at low water. On the spring tides the low water may fall another foot, leaving but thirty-nine feet in the Ambrose Channel at low water. As the ship draws between thirty-nine and forty feet on arrival at New York, it is not safe to try to enter at any other stage of the tide than at high water. Owing to her great bulk it is improbable that any amount of tugs could dock the ship at Hoboken when the current is running in the North River, so for docking at Hoboken, the ship's arrival must be timed so that she is off Hoboken at the slack water. As the slack water at Hoboken is after the slack water in Ambrose Channel, we enter Ambrose Channel then at high water and carry slack water all the way up the channel and dock at Hoboken on the high water slack tide. On sailing from Hoboken she is undocking on the low water slack tide, so as to arrive in Ambrose Channel at the next high water. The deep draft of the ship on leaving New York, namely, forty-one feet ten inches, requires that in leaving New York Harbor and as far as the Narrows, the ship must seek what might be called the prehistoric gorge of the Hudson River. There are many places between Hoboken and the Narrows even in what ordinarily would be called the navigable fairway, that are so shallow that the *Leviathan* would go aground. This prehistoric gorge is accurately known to Captain William S. McLaughlin, Master Pilot of the New York-Sandy Hook Pilots, who always pilots the *Leviathan* out and in.

DOCKING AND UNDOCKING

In docking the *Leviathan* there is no particular trick that must be known, but on undocking her it must be so timed that while on the New Jersey side at Hoboken the water is dead slack, the flood on the New York side has just begun to make. This helps the operation in two ways. First, by getting her away from the dock before the flood current begins to press her against the dock, and second when she backs out, the beginning of the flood current on the New York side assists to turn her

T H E U. S. S. L E V I A T H A N

stern upstream and operates to point her correctly. In leaving New York for sea, the ship must be manœvered over to the New York side, the deepest water being on the New York side. In midstream and on the New Jersey side, between Hoboken and the Statue of Liberty, there is not enough water to float



DIRECTING THE DOCKING OF THE U. S. S. "LEVIATHAN"

the *Leviathan*. In docking and undocking we need from fourteen to sixteen tugs. Abnormal conditions can be expected in the winter months. Upstate freshets and northerly gales sometimes operate to kill the flood current off Hoboken and to cause a continuing ebb current. Such a condition has happened,



BREST HARBOR

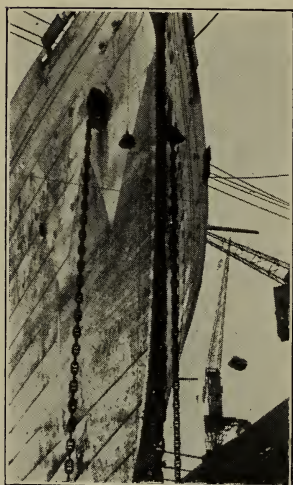
making it impossible to point the ship correctly downstream, and it has been necessary to yield to the elements and to permit her to turn the ship. There is always an apprehension in entering and leaving New York Harbor lest merchant vessels carelessly anchor themselves in the *Leviathan's* fairway. Such a condition adds difficulties to the piloting of the ship.

Like most passenger vessels she is designed to have a slow and easy roll, which means that she has not a great margin of stability. In entering New York, bringing troops homeward, it is necessary to keep the troops in control and evenly distributed, because in their excitement and happiness, they tend to rush from one side to another on the passing of every cheering ferryboat, heeling over even this great ship. When this ship heels over, owing to her great beam, and to her box-like dead-flat section, it materially increases her already great draft. Large ballast tanks with suitable pumps are provided for the purpose of counteracting the tendency of the ship to heel over, but in spite of this, at sea she lies over to the breeze, and in entering New York she is very sensitive to the movement of troops about the deck.

In mooring to the buoy in Brest Harbor, it is an advantage to arrive at slack water; she must be brought to the buoy with her momentum entirely gone, for her great weight of sixty-nine thousand tons, if moving when the buoy is correctly placed, would make it impossible for the mooring party to handle the great heavy links of four-inch chain, and to connect the mooring shackle.

Drydocking the U. S. S. "Leviathan" in Gladstone Dock, Liverpool, England

By Lieut. A. W. MINUSE, U. S. N. R. F.



Drydocking a ship in a graving dock means placing the ship in a dock or basin at the entrance of which is a gate or caisson, accurately centering the ship over a system of blocks or beds, previously prepared according to plans and then pumping the water out of the dock.

When a ship is designed the Naval Architect always prepares a docking plan showing in detail just how to prepare these beds so that the ship will rest evenly without straining her in any way. Ordinarily, docking a ship up to 32,000 or 33,000 tons is not much of a problem, nor does it involve much of a risk, but on larger ships with all the necessary data known, those connected with the docking always feel easier when they see the ship setting safely on the blocks.

To give some idea of the size of the *Leviathan* consider our latest, biggest and most powerful battleship, the *New Mexico*. She weighs 32,000 tons. The *Leviathan* weighed or displaced at the time of docking more than twice this, or approximately 66,000 tons.

We had no docking plans nor plans of any description showing her form or construction. The Germans had either destroyed or removed all her plans. This was the problem we were confronted with in January, 1918, when it was decided to dock the ship in Liverpool for the necessary cleaning and painting of her body under water, and doing other necessary work, including a clump on her forefoot for towing the paravanes, or mine-sweeping device.



IN DRY DOCK

THE LIVERPOOL DRYDOCK

The Gladstone Dock in Liverpool was the only drydock in the world at the time that would take the *Leviathan*. The entire development of this dock, which included a tidal basin, was not completed when the war broke out, so the tidal basin was abandoned and one of a pair of docks was finished up and a long channel dredged to the River Mersey.

The ship drew so much that we could not enter the dock except at the spring tides, or in other words, only about two days out of a month would permit us to enter the dock, provided the wind did not cut the tide too much.

The next thing was to decide on how to prepare the beds of the drydock to receive the ship. An examination of her bottom was necessary. Divers were sent down and they reported that she had neither docking nor bilge keels, and that her keel plate consisted of a plate of about 2 inches thick by 3 feet wide.

In converting the ship from a passenger to a troop ship, we naturally became familiar with every detail of her construction. With this knowledge of her construction and due consideration being given to the location of the heavy weights, etc., it was decided to place the main bed under the third intercostal, this bed running from frames 220 to 101, or a distance of 358 feet amidships. The spacing of these blocks was 6 feet, or every other frame space. The center of these blocks was $25\frac{1}{2}$ feet from the center line of the ship.

In addition to the center line bed, which is placed underneath the keel, and the two main beds, one port and one starboard, which is placed under the third intercostal, an outer bed, consisting of four sets of five blocks each, space 6 feet centers, was placed under the fore and aft coal bunker bulkhead, at the intersection of the thwartship bulkheads.

The fore and aft center of these blocks came at frame 199, 174, 151 and 126. Blocks of the outer bed were staggered with those of the inner bed. This outer bed was 35 feet from the center of the ship. At the fore and aft ends of the ship where the dead-rise is considerable, an inner bed

a few inches from the center of the ship for a distance of 60 feet was prepared, 12 feet 6 inches forward, and 13 feet 9 inches aft.

After deciding the location of these beds, the next step was to get some idea of how to prepare them, so that they would conform to the shape of the ship. Preparing the center line bed was of course easier, as it was known that the keel of the ship was a straight line.

The forward end of the center line bed consisted of a solid line of blocks for a distance of 104 feet, and the after end of a solid line of blocks for 144 feet, where exceptionally heavy weights would be carried. The balance of the blocks was spaced every 15 inch centers, except in the way of water-tight bulkheads. Under these bulkheads the blocks were filled in solid for 7 blocks. On each side of these, two spaces were omitted and then filled in solid for 5 blocks. Reference to the docking plans will show the spacing of these blocks.

BLOCKS AND BEDS

An idea of the blocks used in building the beds can be had by referring to the photograph. They consisted of 3 cast steel wedges, which, when placed upon each other, were about 3 feet high, 15 inches wide at the bottom, and 3 feet 6 inches long. On top of these steel wedges was placed a hardwood block 12 inches square and 4 feet long, and on top of the hardwood blocks was placed a soft wood cap 12 inches wide by 4 inches thick by 4 feet long.

To prepare the main, inner and outer beds, it was necessary to have some idea of the form of the ship. By opening up the water-tight doors in the fireroom we were able to get a base line 300 feet long. Every other double bottom tank was pumped out and offsets taken at the fore and aft ends of these tanks, in way of the main, inner and outer beds. The taking of these offsets was greatly facilitated by the fact that the double bottom was found to be flat in both the fore and aft thwartships direction. Buttocks were run through these offsets. While these buttocks faired up very well, it was realized that

the measurements would not be accurate enough for the actual preparation of the beds; therefore they were prepared to within 4 inches of these measurements.

Several hundred wedges of varying thicknesses were made ready in advance, and after the ship was placed on the center line blocks, the space between the main and outer beds and the ship's bottom was packed with the wedges by divers.

The Gladstone Dock was prepared according to the above description, carefully checked and measured, and then flooded to about 10 feet, so that no one could tamper with it. After the dock was prepared, we had to wait several days for a spring tide, and also to dredge out a shifting shoal at the entrance of the channel leading to the dock.

The first tide that the ship could enter the dock was at 11:50 A. M., January 14, 1918. She was brought to as even a keel as possible, which was 35 feet 9 inches forward and 37 feet 6 inches aft. This was accomplished by filling the forward tanks and emptying the after tanks and placing about 1,400 tons of coal in her reserve and forward bunkers. This was the nearest to an even keel that we had ever had the ship up to this time in the light condition. I might mention here that in this condition the ship is extremely tender, and that Lieut. Watts of the Engineering Department, displayed great diligence and good judgment in keeping her perfectly upright, while setting her on the blocks.

ENTERING THE DOCK

On January 14, 1918, the ship proceeded down the Mersey River to the entrance of the dock, but the wind was too high to attempt making the entrance, and we had to return to Princess Landing. On the 15th conditions were much better but none too favorable. However, as it was the last day of the spring tide we had to make the attempt. The spring tides are about 21 feet, and the current is very swift, so we had less than an hour in which to enter the dock and close the caisson.

The entrance was very narrow, so that tugs were of little assistance and she had to go in under her own power. It was

a fine piece of seamanship and was successfully accomplished without damage to either the ship or the dock. The handling of the ship in the long entrance channel to the dock was done by the Senior Captain of the Cunard Line on shore. We were all greatly shocked about two weeks later to learn of his death, due to a channel steamer being torpedoed on its return from France, where he had been called on an important conference. It was the loss of such fine men through the treacherous German submarines that brought home to us more than ever our solemn duty to beat the Germans at all costs.

On the 16th everything was ready for setting her on the center line blocks. The weather conditions were ideal; the wind was on the stern and the ship was on an even keel. The stern touched the blocks and she settled at 3:55 P. M.

Previous to setting the ship on the blocks 12 sighting battons were erected along the level of "B" deck from stem to stern, so that if the ship was strained in any way it could be readily noted. A piano wire was also stretched from side to side at the top of the thwartships coal bunkers amidships and connected to a spring balance, so that any opening up effect, due to the divers not properly packing the main beds, would immediately show.

As soon as the stern touched the blocks the top row of side shores were set up commencing from aft. These shores were spaced every 5 frames, or about 15 feet centers. Altogether there were three rows of these side shores. The water was then lowered to a depth of 32 feet and the water maintained at this depth while the divers packed the main, inner and outer beds. As soon as possible after the water reached 32 feet, the water in all the tanks was pumped out with the exception of the feed tanks and No. 23 and 24 fresh water service tanks. The stem and side anchors were lowered and the pig iron in No. 17 tank, amounting to about 473 tons, was removed.

The water was maintained in the dock at 32 feet, because at this depth the ship was just resting nicely on the center line blocks and would not compress the soft wood caps. We did not want any unnecessary weight on the center line blocks until the divers had finished their work on the main and outer beds,

so that when the dock was finally pumped out, the ship would imbed itself in the soft wood capping at a uniform depth. This worked out exceptionally well, and was remarkably uniform on all beds, amounting to about 2 inches at the end of the third day. On the third day the spring balance on the piano wire registered less than an ounce difference. The sighting battons showed that she had settled amidships about $1 \frac{3}{8}$ inches. After floating she returned to $\frac{1}{8}$ inch of the original condition. This I believe to be the natural hog of the ship.

The undocking of the ship was somewhat unusual in that 7,800 tons of coal were placed aboard while she was in dry dock, 1,400 tons while the dock was absolutely dry and the balance of the coal, with from 35 to 37 feet of water in the dock. This was not sufficient to float the ship, and she still rested upon the docking beds. Immediately before letting in the water, all the bilge and hanging shores, and shores under the stem and stern that would in any way injure the ship should she take a sudden list, or any undue change of trim, were removed. These shores were removed at about 15 minute intervals, so that the ship could adjust itself and any undue settling could be noticed. During this operation men were stationed at the sighting battons and the piano wire. Water was then admitted as quickly as possible to 35 feet and maintained at this level while additional coal was put aboard from barges admitted to the dock at low tide. This was a rather trying ordeal, but was successfully accomplished in 5 days.

Arrangements had been made to leave the dock on February 11th. It was therefore decided to float her on the 10th, and an estimate was made of the coal on board and such tanks as were necessary to bring her to an even trim and even keel, were filled. She floated at 1:20 on the 10th with 38 feet 11 inches draft aft, 39 feet 6 inches draft forward, and less than $1\frac{1}{2}^{\circ}$ list to starboard.

I cannot speak too highly of the hearty co-operation received from the ship's officers and crew, especially Naval Constructor J. H. Jack, U. S. N. This applies not only to the docking of the ship, but to her conversion from a passenger

ship to a transport. No duty was too strenuous or hours too long, and during the conversion the living quarters on the ship were not of the best. They were continually shifted from one part of the ship to the other, even the meals were of a makeshift character and at times irregular. Every man seemed to realize what we were up against and that we must make good. Everyone pulling together, accomplishment was made possible.

The conversion of the ship to a transport speaks volumes for the Navy Department organization and more particularly for the New York Navy Yard, under whose direct supervision the work was undertaken.

The ship was so big that she could not be taken to a shipyard, nor transferred to the Navy Yard. The task had to be undertaken where she lay at her piers in Hoboken and the New York Navy Yard organization was elastic enough and active enough to carry on the work outside the Navy Yard.

The Bridge

General conditions on the bridge were good. Instruments had deteriorated somewhat, owing to the long stay in port and not being used.

All signal flags and navigation instruments, including the three chronometers which comprised part of her equipment were removed. The ship was equipped with two master gyroscopic compasses installed on "G" deck and seven repeaters for use on the bridge in steering and taking bearings; these were all found to be more or less in need of repairs and after days of hard and tedious work on the part of Lieut. W. H. F. Schluter and his well organized staff they were put in fine condition and have been kept in this manner constantly even though he has had to add pieces of lead to each master gyro to maintain a level. Being of German manufacture, no spare parts could be obtained during the war, but whenever they were needed Lieutenant Schluter proved to be the "man of the hour."

The gyros were only one of his many troubles for, being electrical officer, there were numerous other duties about the ship. There were a great many German charts left on board but the ship was equipped by the Bureau of Navigation with American charts before leaving port. The steering gears and all the telegraphs were changed to English speaking. The deep-sea sounding machines are still in commission after a great amount of usage, and the motors attached to them for heaving in the lead are still in good working order. The patent log for measuring distance is the "Forbes," an English patent. Loud-speaking telephones reached to all the principal parts of the ship, and are very much used. A fire-alarm indicator is placed in the wheelhouse and is set at fifteen-minute intervals. This indicator has pipes leading to all holds through which the smoke from any fire in a hold would be drawn and can be seen in the wheelhouse when the alarm goes off. A steam hose can be connected to the pipe and the fire smothered. There is a control for operating water-tight doors and a diagram showing location of each door; upon this diagram an electric light burns when each door is closed, showing the officer of the deck whether the control works properly.

The big 44-inch searchlight on the foremast is controlled very readily from the bridge by a small lever; the fog bell is rung and all whistles are blown by an electrical attachment. The master electric clock is on the bridge and gives the time to 550 repeaters situated throughout the ship. These clocks required a great amount of painstaking labor to be put into good condition and demand constant care and supervision. During the alterations in which first class staterooms were ripped out to make troop quarters, the wiring system to the clocks was torn out by the workmen as well as everything else which happened to be in their path.

As mentioned previously the ship's chronometers, three in number, were missing. These were afterwards found by the Secret Service in a nautical school in New York City. The commanding officer had to send them to the Naval Observatory at Washington, D. C. This was done with great reluctance as they were of the finest type and a good chronometer is a very

valuable and much used article aboard a ship. Others were sent to replace them. The bridge and signal bridge were altered for transport purposes. The fire control and range finder stations being built on the signal bridge, and the fine bright finish of the wood was changed to the more popular color at that time—the war gray. Otherwise the *Leviathan* remains the *Vaterland*, as when she was in the merchant service—a German transport in disguise.

The Deck Force

When the *Leviathan* was taken over by the Navy, the chief difficulty that presented itself was the scarcity of men available for the deck force. Only a few of the crew that had been assigned to the ship had ever been to sea. A few—gun crews, for the most part—had had some experience, but not enough to qualify them as seamen. This was partly due to their short terms of service.

As a result, the brunt of the work fell upon the shoulders of a few experienced petty officers, who fortunately had been assigned to the ship. These men worked day and night in a supreme effort to organize their crews and create a working machine. For the first few days they did everything from scrubbing the decks to exploring the double bottoms. There was no distinction between the rated men and the seamen in this line of work.

The size of the ship added to the confusion. It was impossible to keep a detail together for more than a minute and a half. It was easy for an entire working party to get lost between decks. It was easier for some to get lost than others. Finally, it was decided that the only way to keep a working party together was to hang a bell around the neck of the petty officer in charge. This scheme worked well until two working parties met, when it was necessary to call in a traffic cop to get them separated.

Because of their unfamiliarity with the ship, details were apt to deliver sacks of “spuds” to the Commander’s cabin, and

stationery to the blacksmith shop. This situation was relieved by the appointment of guides to conduct the working parties around.

The parts of the ship allotted to the deck division (at that time we could only boast of one), were in rather good shape, considering the time the ship had been laid up. The weather decks were littered up like an old woman's backyard after a hard day's washing, but most of the truck was movable. Boats were piled across the hatches and all over the decks, making it impossible to get around. Boxes, stores and cordage were everywhere.

The process of making the ship habitable was accomplished by a mere handful of men, most of the division being assigned to various details for work in other compartments.

After the work of cleaning up had been completed, attention was turned to the rigging. The running rigging was in bad shape and it was found necessary to refit all of the davits that were rigged with manila rope. The booms were also refitted with new whips and guys. Requisitions for wire and manila lines were made right and left and all of the rigging was overhauled.

Of the 72 boats on board, 26 were equipped with friction winches and needed no power for rigging out and loading. The power for hoisting was furnished by electric motors, each one operating two or more winches. These winches were given a thorough overhauling and found to be in excellent condition. The boat falls, which were of special laid wire, were then unrove and tested. Only two of the entire number needed attention. At that time we had no serviceable wire, and it was a case of a few well-made long splices.

The ground tackle on the ship was all that could be desired. Of the three Hall type anchors, the largest, or stem anchor, weighed a little more than twelve tons. The other two, port and starboard, tipped the scales at eleven tons. These little trinkets were the only articles on board considered safe from souvenir hunters. For the information of landsmen, the "anchor watch" has no connection with the anchor itself, but is merely the men on watch as Officer of the Deck's night messengers while the ship is at anchor.

The stern anchor was fitted with a 4-inch stud link chain, 150 fathoms in length. The port and starboard anchors had chains of 164 and 150 fathoms, respectively. The chains for the latter were three and three-eighths inches in diameter, the size of a chain being measured by the diameter of the material of which the links are formed.

The anchor engines were of corresponding size, and could be connected with the capstans on deck. In addition to them, there were seven more engines for capstans in all parts of the ship. In consequence, mooring the ship to a dock was not the hard task that it usually is.

The stern anchor and chain had apparently been left in Hamburg. The hawse pipe aft, and the stern chain locker were utilized for the handling and stowage of the heavy manila hawsers.

Most of the manila hawsers on board had to be replaced. Natural decay or possibly a small application of acid had so weakened the lines that they had a tendency to break at the most inopportune moments. The wire hawsers, however, were in A-1 condition, and up until the present time, have never been replaced.

But the work of fitting out was not all that had to be done. Men must be fed; and it seemed, from the accumulation of provisions on the dock, that we were being depended upon for the entire job of feeding the A. E. F. Truckload after truckload of stores was piled on the dock, and hoisted aboard, day after day. We soon learned that one trip with 10,000 red blooded men aboard involved the consumption of almost everything we had been piling into the ship's storerooms and refrigerators. Besides food, there were general stores to be handled, including everything from safety pins to dishwashing machines. Every department was working overtime to get things ship-shape, and the deck force most of all.

At last it was rumored that we were about to make our maiden trip under the American flag. This was followed by a speeding up in all departments. It received final substantiation when military equipment and stores began to arrive. The time had come for a real test.

We had a chance to test our booms when a five-ton truck showed up as a part of the equipment to be loaded. The booms were of three-ton capacity and it was necessary to strengthen the lifts and rig a purchase in lieu of the single whip. It was taken aboard without mishap.

Just before leaving all boat-falls were given a final test. Every boat was rigged out and lowered to within a few feet of the water. A party of sixty-five men then clambered in and the boat was hoisted and lowered ten feet or more. This party was used for all of the boats, which were found to be in satisfactory condition. A few boats not on davits were hoisted overboard and tested for watertightness.

One morning in the fall of 1917 we slipped away. There were many conjectures as to our destination, one opinion being that we were bound for Panama for a last overhauling in dry dock. It developed that we were taking 1,500 marines to Guantamo.

Upon our arrival in Cuba, we discharged all equipment and turned our attention to the boats once more. The boat officers were given their first lesson in the handling of the boat winches, and some of the men were given their first experience in a boat under oars.

Back again to Hoboken—more handling of stores and provisions. The Marines, although few in number, had managed to put quite a hole in our store of provisions. But the worst was yet to come. Orders sending the ship to France came, and with them 7,500 soldiers.

We had one piece of luck in getting off. While the crews of other transports had been compelled to sit and watch civilian stevedores put their stores aboard, the crew of the *Leviathan* were allowed to handle everything going aboard the ship themselves. There were no restrictions whatever, permission even being given to work night and day at the job. All of the equipment handled by the civilian stevedores belonging to the army. The crew handled all of the naval equipment aboard, including Liberty motors, aeroplanes and S. P. boats.

Liverpool had the honor of receiving us on our first and second voyages. Here we went into dry dock for final repairs,

and here we had our first experience coaling ship in drydock. Coaling was carried on from cars running along the dock and also from small lighters or flats in the dock itself. The lighters were emptied and taken away only at certain stages of the tide. There was always a chance of the ship floating during one of these manœuvres, and the work of bringing loaded lighters into the dock and sending the emptied ones out required quick action and plenty of it. The notorious punctuality of time and tide is especially noticeable in the Liverpool drydock, and we worked at all hours of the day and night to keep in step.

The bottom of the ship was given a new coat of paint, and we left for Hoboken and more troops. On our second voyage to Liverpool our paravanes were installed, adding a little to the work, but contributing a good deal to our sense of security. Once more, for the benefit of the landsman: The paravanes, or PVs, are contrivances fitted to the bow of the ship, as a protection against mines, so constructed that they will automatically pick up the moorings of a mine and cut it adrift.

Beginning with our third trip, we worked on an express train schedule. Everything depended upon speed. Our cargoes increased at the same time. In addition to all kinds of army equipment, we frequently carried aeroplanes, boats for overseas duty, and on one trip a large mooring buoy. In order to load them on board, additional changes had to be made in the rigging, purchases and guys of the booms. Even the weather decks were utilized for the transportation of cargo for the naval forces overseas.

At the present writing the good old ship is still on the job—bringing them back. The machine is running as smoothly as the ship's engines, and instead of having a few inexperienced men in the deck force, we have an organization, built from almost nothing, that can compete with anything in the navy.

Embarkation and Debarkation of Troops

This is a brief description of how the *Leviathan's* human cargo was loaded and unloaded. The plan had been fol-

lowed from the beginning with slight changes made by experience in carrying troops over before the armistice and carrying them back afterwards.

The ship's troop capacity began at 6,800 and on the 13th voyage it was approximately 12,000. Throughout the war it averaged about 10,000. In addition, officers' space has varied between 400 and 600.

Throughout the war, carrying troops east, five gangways were employed on G-deck forward, to fill forward compartments; C-deck and F-decks amidships, to fill amidship compartments; E-deck and G-deck gangways aft to fill after compartments.

On each gangway, the compartment farthest away and lowest was filled and so on to the gangway compartment. In no case did troops crowd through a filled compartment.

It was early realized that loading the ship with troops was a Navy function and was treated as such. The organization at each of the five gangways was: one naval officer in charge and assisted by one chief petty officer and fifteen men. Wherever Army officers were available one was detailed to assist the Naval officer.

Prior to embarkation on each voyage, the ship's embarkation officer made an assignment of all troops the ship was to carry, so organizations would not be split up but located in the same part of the ship to facilitate work. Often this was a problem on account of the arrival of trains or ferries and the size of organizations carried. Also, troop compartments had an arbitrary number of bunks in them, based on the amount which could be put in and not upon the number in military organizations. By planning we were able to get a complete regiment amidships, one aft, and a battalion forward, then filling in smaller units up to capacity.

Generally a battalion, or approximately 1,000 men, came to the ship a day in advance of embarkation for the guard and mess details. The next day the balance of the troops arrived. When the guard was not posted before embarkation, the troops were all over decks, superstructure, and masts, resulting in much unnecessary confusion.

Embarkation usually began about 8 o'clock or 9 o'clock in the morning, although on one occasion it began as early as 5:30 A. M. Organizations marched on the dock, both upper and lower levels, the Army checkers checked the individual soldier's names upon the passenger lists and the soldier would receive a billet ticket which showed his compartment, bunk number, deck space, abandon ship station, safety rules, etc. Then the column would move over the gangway and the prescribed routes to the compartment. Each of the five columns were led by a Naval guide, and other Naval guides were posted along the route and seven or eight Navy men in the compartment, to direct the columns to the proper bunks and put the soldiers in the bunks called for by the billet tickets. The numbering in compartments generally began in the forward starboard corner and ended in the after port corner. Later on, the bunks in the amidship compartments were renumbered so that a column of troops could be directed up a passageway and men could get into the bunks on both sides of it.

RULES OBSERVED

A company officer would go into the compartment being filled and assist the Navy detail; troops got into their bunks as soon as found, and stayed there until embarkation over that gangway was completed. No smoking was allowed in compartments. Without strict adherence to these rules, embarkation was hindered. Generally it was possible to take troops aboard nearly as fast as they arrived on the dock and many times the dock would be emptied before the next organizations would arrive. The troop mess hall on F-deck was used as a reservoir to hold over 1,000 troops marching in a serpentine line which proceeded into the compartments being filled. The Naval officer in charge of the gangway circulated from the gangway over the route into the compartment and saw that all went smoothly. The embarkation officer moved around all gangways into compartments being filled and upon the deck, generally overseeing and directing embarkation.

The Navy men for the forward gangway were from the first division, midship gangways from the third division and the other gangways from the fourth division. With the inborn aptitude of the American youth, they soon became experts in embarking and made short work of filling compartments. There was little change in the details during the entire war period. The men took real pride in their work. Embarkation of 10,000 troops, each soldier into his own numbered bunk, could not have been effected in a period of six to eight hours, if it had not been for the zeal and ardor and intelligence which the men put into their work.

Whenever a bunk was found which could not be used and compartments were checked over before embarkation, the ticket was taken up from the soldier and another secured at the gangway so the man could occupy a bunk in the vicinity of his company.

Relations between the ship's officers concerned with embarking and the army officers of the port of embarkation staff were harmonious and co-operation grew as trips increased. On some occasions the ship's officers went to the army camps, gave talks and distributed ship's pamphlets in advance of embarkation which were of assistance in embarking and getting the army settled on board.

On these war time embarkations, one noted the eagerness with which the troops came aboard to get to the scene of war. On one occasion a number of colored troops went up E-deck gangway, which had an angle of nearly forty-five degrees, upon their hands and knees for safety's sake. This caused great laughter.

Only on one or two embarkations were there any substantial delays, as trains and ferries generally arrived on schedule. Once an entire regiment was fitted up with two pairs of trench shoes upon the upper level of the dock. During the influenza epidemic in the fall of 1918 taking the temperatures of all troops slowed up embarkation.

DEBARKATIONS

During the war, debarkation on the first two trips to Liverpool was simply to march the troops over the G-deck forward, F-deck amidships, and G-deck after gangways on the landing stage in reverse order of embarkation, where they mustered by organizations and entrained. On the third trip to Liverpool, in November, 1918, the *Leviathan* ran her nose into the Mersey mud off the Gladstone dock in a heavy fog. The tide ebbed and the ship began to list. All the Mersey ferry boats were commandeered and the 8,000 troops were debarked on them from F-deck gangway amidships and G-deck gangway aft, in three hours. Gangways to the ferries in several cases were at an angle of sixty degrees. Debarkation was rushed to lighten the ship, and she was backed off on the rising tide that evening under her own power.

At Brest, during the war, a different plan was followed. Coaling began soon after the ship was moored. G-deck gangways aft, port and starboard sides, were the only gangways available to debark troops onto lighters. B-deck and the troop mess hall were used as debarking mustering stations. Organizations moved to them from their compartments, according to prearranged plan, as it was essential to send the troops ashore by organizations. B-deck held about 1,800 men with their packs and the mess hall about 1,200. When assembled, they moved to lighters lying at the after gangway. These held at first according to size, from 600 to 2,200 men and they were packed tight. Their capacity was reduced on later voyages.

The troops cheered the old *Leviathan* as their lighters drew away, and our men responded. The *Leviathan* carried many organizations which later paid heavy toll of casualties in battles.

When the armistice was signed and the westbound tide set in, it required considerable work to reverse the procedure of embarking at Brest and debarking at Hoboken. The entire embarkation was over G-deck gangway for all compartments up to the thirteenth voyage, as it proceeded during coaling.

The procedure of filling compartments was the same, but it was necessary to unload lighters quickly and get them away so the line of troops to compartments was extended to fill A-deck, B-deck, D-deck forward and aft, from whence the line of troops fed down into the compartments.

From 1,100 to 2,200 sick and wounded were embarked at the same time as the other troops, this was done under supervision of the medical officer, assisted by the hospital corps. The casualties were taken to sick bay or E-deck compartments especially set aside for them.

Debarkation at Hoboken was the quick and happy event following the reception the ship received coming up the harbor. G-deck forward, C and F-decks amidships, and G-deck after gangways are used. The troops march out on them in reverse order of embarking. Units muster on the dock according to their organizations. Briefly, the procedure resembles pouring liquid out of three different pitchers, just the reverse of filling the compartments upon embarkation. The debarkation of troops was completed in about three hours.

The dock was always a lively place with throngs of reporters and welfare workers present with refreshments and smokes for the boys. The canine mascots generally got aboard unobserved, but in debarkation they proceed with their proud masters down the gangways and are admired as returning heroes by those upon the dock. Many of the dogs were "prisoners of war," having come over to the American trenches from the enemy.

Such, briefly, is the story of the loading and unloading of the *Leviathan's* human cargo. The doughboys have bravely done their part in winning the war. We of the *Leviathan* have had the happy and important duty of getting them over safely and bringing them back home.

Abandon Ship Drill

Abandon ship drill is the most important drill on board ship as the saving of the lives of all would depend upon the

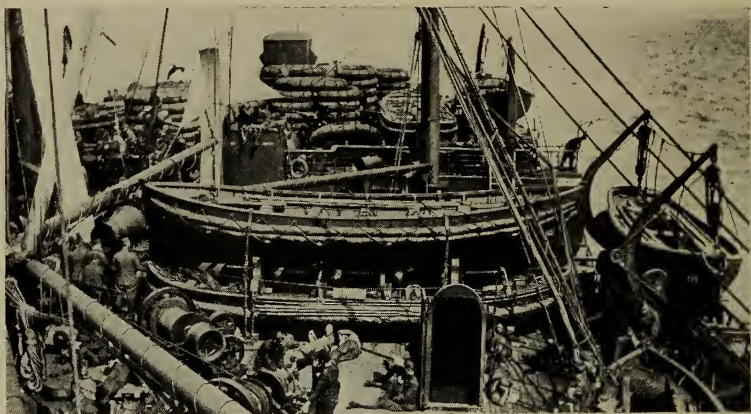
degree of perfection, organization, and speed of execution. It is easily seen that a ship the size of the *Leviathan* by reason of her water-tight doors would not sink for several hours after a torpedo attack or after striking a mine; thus the great danger to be avoided is the panic attendant upon such a contingency. The end to be attained is the conducting of all the troops in an orderly and expeditious manner to the weather decks where, equipped with life jackets and canteens, they can climb over the side on sea ladders rigged for the purpose and reach the rafts and boats already lowered into the water.

The abandon ship organization requires the second in army command to be in charge of the troop movement. He has as his assistants thirty-five captains as troop compartment officers—they are the senior officers in each troop compartment—and seventy lieutenants, the junior compartment officers. As a special abandon ship detail there are twelve majors acting as abandon ship mustering station officers and twenty-four captains and lieutenants acting as assistants to these officers.

The abandon ship mustering stations are distributed over the ship and include all available space on the weather decks except such space as is necessary to the lowering of boats or to the actual navigation of the ship. The routing of the troops to these stations is worked out on the principle that all water-tight doors will be closed as soon as abandon ship signal sounds. The capacity of these stations is limited to a minimum of three cubic feet of deck space per man, giving also due consideration to the disposition of the ship's boats.

During the war the first abandon ship drill was held prior to the sailing of the ship. All men aboard were obliged to keep their life jackets within reach at all times. For the first three drills the troops were sent below to their compartments at the call "assembly" on the bugles so they would become familiar with their abandon ship route. After the first three drills, troops already up on deck proceeded directly to their mustering stations.

Troops were not required to wear their life jackets when hostilities ceased, but when abandon ship drill was held they



GOING TO BRING THE DOUGHBOYS HOME

were sent below to assemble in their compartments, put on their life jackets, and then at the abandon ship call proceed over the abandon ship route to their mustering stations to stand by for further orders or until "secure" is sounded.

The plan followed throughout the ship called for the emptying of the lowest compartment first. Other compartments using the same abandon ship route stand fast until the troops in the lowest compartment have filed past.

It was found that by this drill all compartments could be emptied and all troops assembled at their abandon ship mustering stations within fifteen minutes of the sounding of the abandon ship signal, or within one half hour of the blowing of the "assembly" which sends the troops to their compartments.

The Gunnery Department

GUNNERY OFFICERS

Creed H. Boucher, Lieut., U.S.N.; assigned, August 3, 1917; detached April 20, 1918.

Arnold H. Bateman, Lieut., U.S.N.; assigned, April 20, 1918; detached, October 27, 1918.

Charles K. Osborne, Lieut. Comdr., U.S.N.; assigned, October 27, 1918; detached, April 3, 1919.

ASSISTANT GUNNERY OFFICERS

William E. Malloy, Lieut., U.S.N.; assigned, October 8, 1917.

(Lieut. Malloy was detached as assistant Gunnery Officer in order to take over the duties of First Lieutenant of the ship.)

SHIP'S GUNNERS

Arthur B. Dorsey, Lieut., U.S.N.; assigned, July 30, 1917; detached, January 22, 1919.

John T. Swift, Lieut., U.S.N.; assigned, January 22, 1919; detached, March 6, 1919.

James F. Williams, Gunner, U.S.N.; assigned, January 20, 1919.

(Gunner Williams served on board as a Chief Gunner's Mate from August, 1917, until he was made Gunner in January, 1919.)

Lieut. Boucher, Lieut. Malloy and Lieut. Dorsey, were the officers in charge of the installation of the battery, fire control system, etc., the training of gun crews and lookouts, and in fact all the numerous details required to have the ship in readiness for sea and action when she cleared the net in New York Harbor. Great credit is due these officers and the men of their department for the excellent manner in which this work was carried out. Much credit is also due the officers and men who succeeded them for the excellent manner in which they maintained the high standard of efficiency that had been set for them.

There were also six Chief Gunner's Mates and seven gunner's mates of lower ratings attached to the ship during her voyages across the Atlantic.

No technical discussion of ordnance and gunnery will be attempted in these pages, just a general description of guns, fire control systems, etc., and their method of operation.

ARMAMENT AND EQUIPMENT

The armament and equipment of the *Leviathan* consisted of the following:

- 8—6-inch 50-Cal. guns Mk. VIII.
- 2—1-Pdr. guns, Mk. VIII.
- 2—"Y"-Guns for throwing depth charges.
- 2—Colt Machine Guns.
- 1—Lewis Machine Gun.
- 150—.30-Cal. Springfield Rifles.
- 75—.45-Cal. Colt Automatic Pistols.
- 1—Large Bausch and Lomb 12-Ft. Range Finder.
- 2—Small Barr and Stroud 1-meter Range Finders.
- 1—Ford Range Keeper.

The six-inch guns were installed on October 5, 1917—four aft and four forward. The distance between the forward and after guns was about seven hundred feet, which is a greater distance than the entire length of any battleship we have in commission.

T H E U. S. S. L E V I A T H A N

The work of installation was carried on by ordnance men from the New York Navy Yard, assisted by the ship's gunnery department.

Splendid co-ordination existed at all times between the Navy Yard people and the ship's force which helped materially to expedite the work. Considerable effort and labor were required to get the ship in readiness to receive the guns, mounts, etc. Gun foundations and gun platforms had to be built; blast bulkheads erected in proper places so as to protect one gun from the fire of the other; certain portions of the deck were extended in order to give the after guns a greater arc of train. Lines of communication, voice tubes and telephones, had to be run from all guns to fire control and spotting stations; and salvo bells and buzzers installed. All of this work was completed in record time and gave excellent results throughout the war.

Foundation and mount tests were held on November 20, 1917, on our trial trip to Guantanamo, when three shots were fired from each six-inch gun. These tests proved satisfactory in every respect.

The 1-pdr. guns were not installed until September 28, 1918. These guns were mounted on the port and starboard sides of C-deck amidships. They also proved satisfactory when fired for tests on September 30, 1918. Lieutenant Boucher originally made a request for four 1-pdr. guns and also two anti-aircraft guns, but only the two 1-pdr. guns were allowed this ship.

DEPTH CHARGES

The original depth charge outfit of this vessel consisted of the earlier type of depth charges, containing only fifty-two pounds of TNT as an explosive. We were allowed ten of the charges and a chute was rigged over the stern for launching them.

On July 27, 1918, two "Y" guns were installed which throw a charge of TNT weighing 300 pounds. These were tested out by filling four large paint drums with wet sand,

to bring them up to the required weight, and firing them from the "Y" guns. The cans landed approximately 200 feet from the ship, our extra high freeboard causing them to travel farther than if fired from the deck of a torpedo boat.

We never had the opportunity of trying our depth charges on a real submarine. A ship of this size would have to be extremely lucky to manœuvre so as to be in a position to drop a depth charge on a submarine.

The "Y"-guns were removed December 30, 1918, after the armistice had been signed.

MACHINE GUNS

The two Colt machine guns were mounted forward on C-deck gallery, abaft No. 3 and No. 4 guns, and the Lewis machine gun aft by the depth charge station. The primary object of the machine guns was for sinking floating mines. The crews were kept in practice by firing at driftwood, floating boxes, fish, etc. The 1-pdr. crews also engaged in this kind of practice.

RANGE FINDERS

The range finders were mounted on the forward superstructure just abaft and above the signal bridge. The large range finder being mounted on a specially constructed stand amidships between the port and starboard fire control stations, and at a height of 124 feet above the water-line. Both control stations were always within easy means of communication with this range finder by means of voice tubes. The two small range-finders were mounted on platforms—one on the outside of each fire control station.

It is difficult to use the range finder against a periscope for the simple reason that the periscope is visible for only a short length of time, and is hard to get a quick reading on. The range will have been obtained by spotting the shots before the range finder can be brought into play. However, the range finder would have been invaluable had we been attacked by a raider, or a submarine on the surface.

AMMUNITION

The ammunition allowance for the ship was:

1,200—6-inch shells, long point.

1,200—6-inch 50-cal. powder charges.

80—6-inch flat nose shells. (Non-ricocheting, for submarines when submerged.)

480—1-pdr. cartridges.

89,000—Cartridges, for .30-cal. rifle.

10,000—Cartridges, for .45-cal. automatic pistol.

In addition to the above, blank ammunition for rifles was carried for training with ex-caliber.

Forty shells were carried in shell racks at the guns at all times, and twenty rounds of powder at each gun while at sea. The rest of the ammunition was carried in the magazines forward and aft (seven decks below) and supplied to the guns by means of elevators and ammunition parties.

GUN DRILLS

Gun and fire control drills were held daily to keep all hands in practice. These drills were discontinued while in the war zone. Actual conditions were simulated as much as possible at all drills.

GUN WATCHES

When not in the war zone two guns forward (one on each side) and two guns aft, were manned by a crew of six men at all times, with a man at the telephones of each of the guns off watch. The men off watch had to remain in the vicinity of their quarters ready for instant call.

While in the zone all guns were manned by a crew of six men with six men standing by in reserve. The guns were kept loaded, both in and out of the zone, with powder and shell—ready for instant firing by inserting a primer.

LOOKOUTS

Good lookouts are absolutely essential to a ship's safety. They have one of the most important positions on the ship. On their alertness depends the discovery of any submarine or suspicious object in his arc of lookout and the immediate and accurate reporting of it to the fire control officer, so that the guns may be brought into action in the quickest possible time against the enemy.

There were twelve lookout stations on this vessel—six on each side—so arranged that each lookout had an arc of thirty degrees to keep under close observation. Of course there were additional lookouts on watch at all times, such as the gun crews, control officers, signalmen and officers-of-the-deck. Each tried to be the first to spot a hostile periscope.

PERSONNEL

The personnel of the gun crews, lookouts, etc., showed excellent qualities and sense of duty during the period of the war. In all attacks by submarines, and false alarms, every man performed his duties as he had been taught at drill, showing no undue excitement, always on the job and ready for more.

The letter from 6-inch gun crew No. 2 quoted below is an example that well shows the spirit of the men.

U. S. S. Leviathan,
April 26, 1918.

From Number Two Gun Crew
To Commanding Officer,
Via Executive Officer.

Subject: Request to be transferred with 6" Naval Gun to Western Front.

1. It is respectfully requested that the Number Two Gun Crew be transferred with a 6" Naval Gun to the Western Front to aid American Artillery.

2. The entire crew of Number Two gun are very desirous

T H E U. S. S. L E V I A T H A N

of a six months' tryout to prove their ability, and if the service rendered is satisfactory, it is recommended that more gun crews from U. S. Naval ships be transferred to the Western Front; the transfer to be voluntary.

3. This is being done in the French and British Navies, and is proving very successful.

(Signed) P. R. BRADLEY,
Gun Captain No. 2 Gun.

First Endorsement

U. S. S. Leviathan,
April 29, 1919.

From Gunnery Officer
To Commanding Officer,
Via Executive Officer.

1. Forwarded. Recommended that if the ship is required to furnish a gun crew for the proposed Naval Artillery Brigade, this request be favorably considered. The spirit of the gun crew is especially to be commended.

(Signed) A. H. BATEMAN,
Lieutenant, U. S. N.

The American Artillery referred to was the U. S. Naval Brigade. They served on the Western Front under the command of Admiral Plunkett, United States Navy, and did great credit to themselves and the naval service.

TARGET PRACTICE

Our first target practice was held November 27, 1917, while returning from our trial trip to Guantanamo, Cuba.

During the time the ship was being prepared for sea at Hoboken, little time was had for drills and preparing the gun crews. However, they were all drilled in their various duties and every effort was put forth to get them in shape.

The practice was held in a choppy sea with a stiff wind blowing and an overcast sky, making it difficult to pick up the targets—two spars, so weighted as to make them float upright. Despite this handicap and the newness of the crews, an excellent score was made.

T H E U. S. S. L E V I A T H A N

SCORE

Shots fired, 78; hits made, 63; percentage of hits, 75.42 per cent.

This good shooting called forth the following note of commendation from the Gunnery Officer to all gun crews.

U. S. S. Leviathan,
December 7th, 1917.

Memo from Gunnery Officer
To All Gun Crews:

The Gunnery Officer is highly pleased with the results of the late target practice. Such accurate firing in action would almost surely put a submarine out of action in short order, and if we are ever called upon to fight for our lives, the Gunnery Officer is confident that the Gun Crews will bear themselves as calmly as they did a few days ago and shoot as accurately.

(Signed) G. H. BOUCHER,
Lieutenant, U. S. N.

Our second target practice was held June 5, 1918, while on our way from Brest, France, to New York. Spotters who had had no previous experience at actual spotting were picked to control the gun fire and made an excellent showing.

SCORE

Shots fired, 38; hits made, 28; percentage of hits, 70.62. Gunnery Officer, Lieut. A. H. Bateman, U. S. N.; Chief Umpire, Lieut. R. H. Jones, U. S. N.

The third and last practice was held on our way from New York to Brest, France, on October 4, 1918. We had unfavorable conditions as to weather and visibility. A high wind and a large swell on the starboard quarter rendered the ship a most unsuitable gun platform. The speed was twenty knots. However, it proved valuable because of the difficulties to contend with. In this practice, as in the second practice, new spotters were put in control of guns in order to gain experience.

SCORE

Shots fired, 32; hits made, 18; percentage of hits, 51.66.
Gunnery Officer, Lieut. A. H. Bateman, U. S. N.; Chief Umpire, Lieut. R. H. Jones, U. S. N.

SUBMARINE ATTACKS

The submarine attacks and alarms are described in detail in Part II of this book. See the following dates: May 6, 1918; May 30, 1918; June 1, 1918; June 25, 1918; September 2, 1918; October 31, 1918.

F. I. Collup, Chief Gunner's Mate, U. S. N.

The Electric Plant

Lieutenant W. H. F. Schluter reported for duty July 29, 1917. The electrical plant at that date was in charge of Mr. Joe. O'Donnell, head electrician, Navy Yard, New York. The civilian force were scattered over the ship, tracing out and locating circuits. This was a most difficult procedure because there were absolutely no plans of circuits nor any descriptive matter of electrical apparatus.

On August 13, 1917, the first Navy electrician reported for duty and a few days later more reported. As soon as enough electricians reported, the civilian electricians were relieved from dynamo watch. Next the entire communication, lighting and power details were taken over by the Navy electricians, both regular and reserve.

When these details were arranged the Navy Yard electricians were relieved from the maintenance of the plant and attended to new installation and repair work only. It was at this point where actual headway was made in preparing the plant for sea, for under the former arrangement the Navy Yard electricians could not devote their entire time to repair work

and new installation without being called off their job every little while.

The co-operation between the civilian and enlisted electricians was splendid and too much credit cannot be given to these two classes of men. It was fine to see the spirit that prevailed, for both were anxious to get the ship ready for sea. To say that this called for good hard work, hour after hour and day after day, is putting it mildly.

To describe in detail just how all this was accomplished would fill a book in itself, but it may be grouped under the following heading and then each group described in general terms.

LIGHTING, VENTILATION AND INTERIOR COMMUNICATION

The first problem was light. To solve this so as to be able to have battleship control, it was necessary to locate every light on its proper circuit. There are about fifteen thousand lights, controlled from eighty-one lighting or power stations and each station containing from eighty, the highest, to ten the lowest, local branch circuits, which in turn are supplied from seventy-six main circuit switches and these again from eight main switchboard feeder switches. When this lighting is distributed over fourteen decks, of which the main deck, at sea level, has an area of seventy-six thousand square feet, one may grasp the magnitude of the problem attempted by these men. This had to be completed without any wiring plants and without interfering with the ship's repair work of other departments.

To crown it all, along came the wreckers. That is, the construction gang who stripped four decks of all room paneling. If it had not been for the alertness and co-operation of the electrical force, both civilian and enlisted, serious fires would have surely resulted. As it was, not a fire alarm was turned in during the entire reconstruction period, due to nothing else except the alertness of these loyal men.

TRACING THE LIGHTING CIRCUIT

During the day the electricians would search out lighting stations, turn off lighting switches, test out circuits and do all minor repair work. At night after the main working force had knocked off, the electricians would muster in primary station number two, main lighting distribution station. Then a main distribution switch of either general lighting, police gangway, or police cabin lighting would be cut off. Emergency lighting was never cut out. The men would then leave in squads and make note of what lighting was cut out and what remained in; and in that manner the lighting control was traced down to such a degree of safety that at dusk all lights that might be visible to the enemy and at the same time provide sufficient lighting for reasonable comfort for the crew and troops could be controlled from one central lighting station and cut out in less than a minute's time.

The proof of how successfully this was accomplished, is in the fact that during the entire period of the war, only one light was reported visible by the escort and that was due to the carelessness of a young officer who left a port open against orders.

Emergency lighting circuits were picked up by cutting out all general lighting circuits and then marking all remaining lights with a blue stripe. These circuits were then cut down to bring them to a safe carrying capacity of a 110 volt, 140 ampere storage battery, which was installed for additional safety in case of accident. These latter circuits were so arranged that if for any reason the main supply should fail a solenoid would automatically cut them in on the storage battery.

VENTILATION

The next problem was the ventilation of the ship. There are 113 ventilating blowers (51 exhaust and 62 supply) and after all blowers were located the problem that remained was to locate the compartment they ventilated. No plans were available. This system was traced out by starting a blower and then tracing up the ducts and recording the particular section that it ventilated.

INTERIOR COMMUNICATION

All interior communication was traced out in the same manner, *i. e.*, start from the transmitting apparatus and from there on trace the piping and wiring until finally we arrived at the receiving end. Then there were two Anshutz Gyro compasses, which no one knew anything about, but here, again, through the close co-operation of the Navy Yard force and the ship's electrical force, the secret of operating these compasses was successfully solved.

To sum up the whole, one may say, it was the dogged determination of the electrical forces, both civilian and enlisted, who never gave in to any proposition that came before them, that carried everything through to a successful issue.

Steering Engine Data

The control and manœvering of a large ship such as the *Leviathan* is a responsible job. This vessel's steering arrangement, or steering gear, is of steam engine type, connected to a hydraulic telemotor. The gear is so easily manipulated that a small boy standing on the bridge of this great ship can control any course or given route that is desired to be taken.

The engines, of which there are two, one port and one starboard, are connected to the rudder head, which is approximately thirty inches in diameter, by meshing into a huge quadrant gear twenty-four feet in diameter. This gear secured to the rudder head or stern is moved right or left, *i. e.*, starboard or port, by a simple turn of a small steering wheel on the bridge. This wheel is connected to the telemotor, which is simply a hydraulic ram of two system pipe lines with plungers set amidships when the rudder, engines, steering wheel and rudder quadrant are in a neutral or center line position. The telemotor is in the wheel house on the bridge approximately 800 feet from the steering engine, which is aft or at the stern of

the ship. Two small three-quarter inch copper pipe lines, one port and one starboard, extend from bridge to steering engine room and these little pipe lines are filled with a fluid mixture of fifty per cent glycerine and fifty per cent water. When the hand wheel on the bridge is moved, this forces the hydraulic ram down or up, causing the fluid in pipes to open a control valve on the steam steering engine operating this engine and moving quadrant to right or left as desired.

This rudder and stem and steering engine quadrant are the largest and most powerful installed on any vessel afloat.

The Black Gang

BY ONE OF THEM

The fire room boys of the *Leviathan* came from almost every State in the Union. They worked hand in hand from about August 1, 1917, until the end of the war. The success of the big ship is due to their hearty co-operation. The part taken in the war by the *Leviathan* is known the world over, and the spirit of the "black gang" merits commendation and a chapter in this book.

While in the dreaded war zone, trip after trip, these boys plugged the fires, day and night, determined to beat Kaiser Bill and fool the submarines. The submarine scare from time to time aroused the firemen and the ship made far greater speed than even the original contractors thought possible. The pressure on the gauges at all times was on the blood mark.

The pass word throughout the fire rooms was: "Give her hell, boys."

At no time was there a boy or man who showed signs of fear during any run, they had no time to think of "subs." Speed, chow and liberty in Hoboken was all we thought of. Our work was hard and laborious, but no one grumbled.

Believe me, we had at first some ash-hopper installation. The Germans who installed the outfit in these fire rooms should have been made prisoners before the war started. Water in

fire rooms was ankle deep. We were also obliged to use coal from the barrows in charging the furnaces owing to the *Leviathan's* goat getter "flarebacks."

"Split Hoof" Barnes, "Handsome" Hook, "Horse" Ross and Gus Rush, the grouchy old chief water jerkers, made four round trips, before either of them showed signs of a smile. But they were far better off on this ship, wading in water up to their knees, than they would be on many German ships where the crew had to carry the ashes through the main dining saloon to dump over the side. After a few trips with this installation the whole system was thrown on to the Gladstone Dock Piers in Liverpool, and a new style, such as human beings would put in any sea-going ship, was installed. The Germans sure are a funny people!

The fire rooms were touted later and all that was necessary to make the fire rooms complete was a little plush furniture. The boilers shaped up spick and span and the bilges were free from water. With this accomplished real efficiency began. The team work of firing the furnaces on bell signal caused many witnesses to wonder in amazement. Boys who were away from home for the first time stood manfully before the raging fires and defied the intense heat in performance of their duty.

The average weight of these boys when reporting for duty averaged about 130 pounds. Being bright and young, with lots of pep, they grew strong and became efficient firemen. The work seemed to agree with them, even if it was particularly strenuous. In conclusion let us tell about "Wop" Cariddo.

Cariddo was passing coal for seven and ten boilers in number four fire room, as the ship was speeding through the war zone on the 4 to 8 watch, when resting just inside the bunker, one of the destroyers in our convoy, dropped a depth charge just off our port beam. The report and jar of the explosion caused the coal in this bunker to shift. "Wop" was somewhat upset and surprised, but not frightened. He came dashing out of the bunker. Old "Biff," the "War Horse," who chanced to be passing through this fire room at the time grabbed him.

"What do you mean by jumping around in this way? Don't you know that is a water-tight door on G-deck?"

"It's water-tight hell," shouted the "Wop." "I think that's what they call a 'can,' but I ain't bluffed, I'm game. I just want to stay with the boys a minute. Just give me a sandwich and I will heave more coal out of that bunker than any five boilers on this ship can burn"—and he did.

Radio Data

No original records or blueprints were found on the ship for the radio equipment when she was taken over by the Navy. This necessitated tracing out each and every individual circuit and making blueprints of the same for future use. All apparatus installed was of German make—Telefunken Wireless Telegraph Company of Berlin. There were three complete telegraph transmitters on board and three receivers. The large transmitter was rated at ten kilowatts and was what is known as an "undamped transmitter." Under favorable atmospheric conditions it was capable of working across the Atlantic and has been known to do so.

During the three-year period of internment it had been allowed to deteriorate to such an extent that it would have been necessary to practically rebuild it in order to use it again. The main trouble was caused by the salt water cooling system eating its way through a galvanized iron case and getting into the frequency transformer coils making them unfit for use. It has not been used since. The second transmitter, known as a five kilowatt quench gap set, did excellent work ever since the ship was taken over. It is good for 1,200 miles under fair conditions and has worked 2,200 miles. The third transmitter is a one-half kilowatt spark coil set and can be used from the ship's power mains for short distances, or in case of emergency (if the dynamos were not working for any reason), it can be used from power supplied by storage batteries. Its radius is about two hundred miles.

T H E U. S. S. L E V I A T H A N

Two of the original German receivers were kept, but one was replaced by a later type U. S. Navy receiver. The ship was never out of transmitting communication as the European coast is picked up before the American coast is lost and vice versa. The large transmitting stations of the United States and Europe are copied from any part of the ocean. Honolulu, a high powered station, has been copied while the ship lay in Liverpool, England, a distance of approximately 8,000 miles.

When at sea we had special stations to copy on specified schedules, so that messages to the ship from the United States are copied when the ship is only a few hours from the European ports. These messages are acknowledged after transmitting communication has been established with the United States.

There are three antennæ, or aerials, two used for telegraphic transmission and one for telephonic transmission. All three are used for receiving. The radio telephone set has been installed since the ship was taken over and is an American invention. It is very effective up to twenty miles and has been used to transmit a distance of thirty-six miles from this vessel. It was used during the war for inter-communication among the ships of a convoy or to and from the convoy and their escort, and after the war was used for inter-communication between ships lying in a harbor and the harbor station itself. This eliminates interference with the main harbor station working ships at sea. At the same time it allows the ships in the harbor to work among themselves or communicate with the shore. Prior to the telephone invention this work was done by visual signal when the ships were within visual signal distance with each other or the shore. When not so situated it had to be done by boat, as so many ships using their telegraph would have made it practically impossible for the shore station to work ships at sea on account of the interference. The voice over a radio phone has been proven to be clearer and more distinct than over land line telephones.

On the *Leviathan* there are three operators and a messenger on duty at all hours of the day and night when at sea. One operator supervises the watch, two are constantly "listening in" with telephones, and one man does the messenger work. Both

T H E U . S . S . L E V I A T H A N

“listening in” operators copy signals practically all the time when on watch. Each has an antenna and a receiving set of his own and listens on different wave lengths. Two messages may be sent simultaneously, or two received simultaneously, but it is not possible to send and receive at the same time. The two receiving operators sit within a foot of each other, yet it has happened more than once, that while one operator was copying a message from Rome, Italy, at the same instant the other man was copying a message from Balboa, Canal Zone. It is a common occurrence for one operator to be copying a European station while the other copies a United States station. The radio force at present consists of one radio gunner, one radio officer, one chief radio electrician and nine operators.



Upper Row, Left to Right—

LIEUT. COMDR. J. W. FORD

LIEUT. R. S. SKEAD

ENSIGN H. B. ROWEDDER

Bottom Row, Left to Right—

LIEUT. COMDR. J. FOSTER

LIEUT. COMDR. J. J. JONES

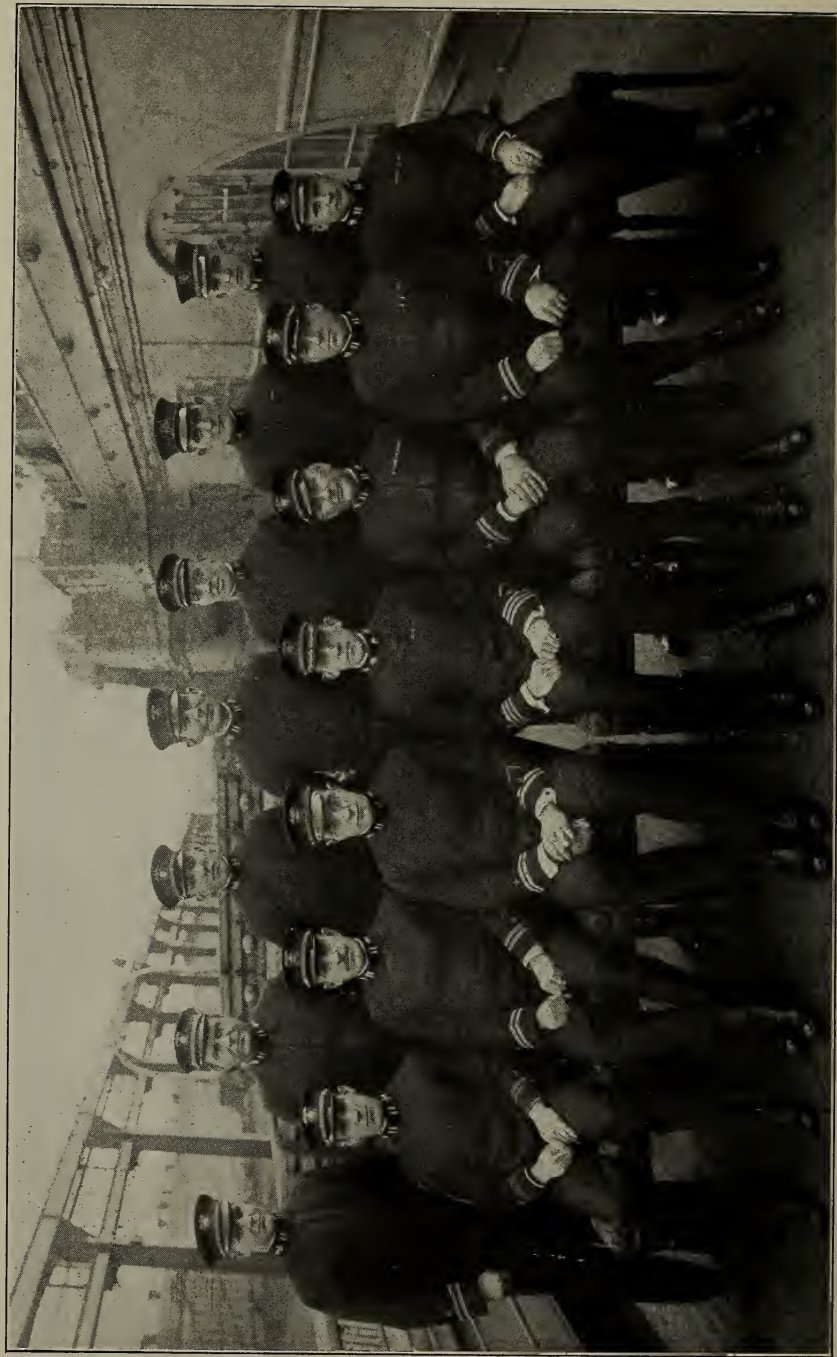
The Engineering Department

By COMMANDER VAUGHN V. WOODWARD, U. S. N.

On July 26, 1917, the Commandant ordered me to report to the *Vaterland* for duty, which I did, and on the above date the vessel was commissioned. When I arrived on board, the engineering department was in charge of the Shipping Board Engineers and personnel. There had also recently arrived about 200 Navy firemen and a few petty officers; this was the total of Navy engineering personnel on board. In company with one of the junior engineers I went below for an inspection of the department. During the next three days all my time was taken up getting my bearings below and the layout fixed in my mind in order to make out a station bill so that I could determine as quickly as possible the personnel required.

At the end of the third day I conveyed this information to the Captain with the request that he bring pressure to bear on the Bureau of Navigation to send our personnel, both officers and enlisted men, as quickly as possible. The men and officers began to arrive and by August 15th the last officer of the complement had arrived. As each arrived he was put in charge of a station and told to trace out his station, make a thorough examination of the interior of all piping and machinery and submit a report on repairs necessary and estimated time. Most of my time during the day was spent below and the nights were occupied drawing up station bills and handling the office paper work, my only assistant being a reserve yeoman in the service of the Shipping Board. I realized that, even at the expense of time that should be spent inspecting repair work, I must get my organization planned and laid out as quickly as possible, and in operation. By August 5th all station bills and organization had been completed and blueprinted and all officers on board instructed. At this time, on account of report of

LT. WATSON LT. MILLER ENS. LEVENTHAL LT. KEESER LT. KIRK ENS. WILSON LT. BRIGHT



LT. LAU LT. EDWARDS LT. R. H. JONES COM'DR. WOODWARD LT. ANDREWS LT. SCHLUTER LT. PARKER

THE ENGINEER OFFICERS

damage to machinery under repair on German ships by aliens, I organized a secret service force below in an effort to detect any attempts made to inflict damage. I purposely let the report spread around among the civilian workmen that there was a large force of government agents employed among them and also in the crew. This seemed to have the desired moral effect, because during the entire period there was but one case of attempted malicious damage, which was discovered immediately. An attempt had been made to thrust welding wire into both of the L. P. astern turbines through the gauge line holes in the flanges and thus damage the blading.

I will not go into details as to the condition of the machinery, but will indicate some of the work done and the changes made in order to get her ready for sea in the quickest possible time. Most of the changes in design and arrangement were made before her dock trial.

Each piece of machinery and boiler was opened up in all its parts and thoroughly examined for foreign material or damage. While open necessary repairs were made.

The joint on every auxiliary steam and exhaust line at the piece of machinery was broken and steam blown through before attempting to operate the machine: this to free the line of foreign material.

All main, spring and thrust bearings were opened up, examined, cleaned and realigned.

The float of the main thrusts were changed from .006 to .015 inches to conform to U. S. Naval practice.

The rotors and casings of the four astern turbines were all partially rebladed in place in the ship.

The dummy ring and piston were found broken in the port H. P. astern; but these were renewed and machined in place, the jacking engine turning the rotor while a cutting tool was attached to the flange of the casting, thus making a lathe out of the turbine and solving the practically impossible problem of removing the rotor from the ship to be placed in a lathe ashore.

It was found that the impulse stages in this turbine had been the cause of the damage to this dummy, so it was decided

to remove the impulse stages entirely, which was done. This decreases the economy of the turbine, but the safety guarantee to the successful operation of this unit so far overbalanced this factor that economy was sacrificed.

The starboard H. P. astern casing had several bad cracks in both top and bottom, and from records on board had not been in use on the last voyage of the vessel. This was in process of being electrically welded when I reported on board. The method in use, however, proved later on test, to give a faulty weld, so that it was decided to cut a deep "V" groove in the cracks and lace with steel studs, the lacing being filled in with the weld, thus giving the weld holding power due to the welding material fusing with the studs. This machine operated successfully during the entire commission of the vessel with no signs of ruptures or faulty welds.

On examination of the main throttles the starboard H. P. astern throttle spool was found to be broken and off the stem. This throttle was renewed and operated satisfactorily.

The system of automatic control of feed pumps in the engine room by float and pressure control was decided on as being highly dangerous, this system was at once removed and hand control of pumps substituted.

After operating for some time it was found impossible to obtain a vacuum that would afford economical operation for a turbine plant. The capacities of the pumps and condensers were computed and checked up and found adequate for the horsepower to be handled. The low pressure system was then tested out by water pressure and every noticeable leak stopped. This however gave us no better results, the best vacuum we could obtain averaging around 27 inches under normal operating conditions. The question of the wet and dry suctions of the pumps was next taken into consideration and it was decided to blank the dry suction off from the condenser and lead it into the wet suction of its own pump. This was done and with the results desired. The vacuum desired can be obtained at all times. With circulating water at forty degrees a vacuum of as high as twenty-nine inches has been obtained.

The average vacuum under all conditions obtained since this change is about twenty-eight inches.

GLAND STEAM TURBINE SUPPLY

In order to further increase economy a radical change was made in the method of supplying the turbines with gland steam. As installed, all turbine glands required the use of live steam, which with turbines of such large dimensions, was quite an item. By a simple change in pipe leads and valves, the leak off from the H. P. ahead glands, which formerly led to the condenser, was piped to supply the glands of all astern turbines and the I. P. and L. P. ahead turbines, thus utilizing a three-inch line of steam which was formerly wasted in the condenser. It is believed that this vessel is the only vessel afloat that uses this system of gland steam.

The above concludes briefly a history of the major items of alterations and repairs in the engine rooms.

In the fire rooms, all boilers were opened up and thoroughly cleaned and all zincs removed. My attention was first attracted by several burned boilers and next by the elaborate system of automatic feeding of each individual boiler by means of floats, levers, valves, etc. This system was at once dismantled, removed from all boilers and scrapped. I then heard reports that the Germans had experienced great trouble with leaky tubes at the back ends of the boilers. Trams were at once made and accurate measurements taken on the expansion of the boiler between upper and lower drums on raising steam. This was found to be quite excessive and greatest between the back ends of the drums. After several experiments and deductions from results obtained, it was decided to remove the short circular internal feed in the front end of the steam drum and fit a standard Navy internal feed pipe running the entire length of the drum. This was done in all boilers and the expansion was reduced about eighty per cent. Since her commission we have never had to reroll a leaky boiler tube. From commissioning to Nov. 11, 1918, there has been a total of 7,198 boiler steaming days, or an average per boiler of 156.5 days of 3,756 hours. Great care was exercised in the clean-

liness of the boilers and boiler water. No pits or corrosion have been found in any part of the boilers.

On the first trip overseas great difficulty was experienced in steaming, all boilers were in use and 144 revolutions per minute was about the maximum speed we could maintain for any length of time. There was an excessive amount of clinker formation covering the grate bars. On diagnosing this trouble and consulting standard works on combustion, air required per pound of fuel, etc., it was decided that the grate bars did not have sufficient air space. From computations made, a new grate bar was designed with an increase in air space over the old of thirty-five per cent. Our troubles in this line at once ceased, and our trip home was made at 151 revolutions per minute with forty-six boilers in use. Later we used thirty-eight to forty boilers for as high as 154 revolutions per minute.

We experienced a great deal of trouble with the side brick walls of the furnaces the first two trips, which required the renewal of about 4,000 bricks each voyage. On being notified that we would be required to start making quick turn-arounds on the next voyage, I realized that this could not be done with such an amount of brick work to be repaired. After many conferences while at sea, we finally decided to tear all the brick work out of one boiler and substitute cast iron liners, shaped to fit the drums and punched with holes for ventilation. This idea proved highly successful. All boilers were immediately fitted likewise and all operated successfully. Besides the elimination of the expense for the purchase of bricks and cement, the labor and time of cleaning furnaces was reduced ninety per cent. All that is necessary for cleaning and repairing furnace walls at the present time is one man and a corn broom.

The steaming efficiency has been greatly hampered at all times by the flow of water over the fire room floor plates, due to the faulty design of the German ash ejector. After many attempts to remedy this by altering the design, we were finally compelled to replace the hoppers with new hoppers of the See type.

There was at all times a great deal of trouble experienced in carrying over water from the boilers to the turbines. The water in the boilers was carried at the lowest level consistent with safety, but in spite of this the trouble still continued. On inspection of the main steam lines and boiler steam drums it was found that they were practically bare of lagging. All these lines and drums were immediately covered with two-inch of magnesia eighty-five per cent pure, and all water trouble was then eliminated. The water level in the boilers was also raised from two to four inches, thus giving a greater factor of safety here.

After several trips we noticed that the uptakes were excessively hot and also that at times torching occurred at the stack tops. This being a menace to the safety of the ship in the war zone, it had to be remedied. After examining the uptake, furnaces and path of gases we decided to alter the baffling. This was done by installing flame baffles at the base of the uptake in each boiler. It not only eliminated the torching, but also decreased the amount of soot formation about fifty per cent.

This includes all the major items of the fire rooms. A few general items follow:

An interesting phase of our overhaul was the method of conducting our dock trial, after all repairs and tests to individual main and auxiliary machinery had been completed. It was realized that it was out of the question to attempt to turn the engines over at a speed which could be called a fair trial, for the reason that there was no mooring that could possibly hold the ship at the dock. After lengthy conference with officers, it was decided to break the tail shaft couplings and jack the tail shaft aft about two inches to clear the line shafting. This was done on each shaft and we ran each engine individually for 4 hours up its designed speed 180 revolutions per minute, then in manœuvering combination to full speed, 119 revolutions per minute, then all four shafts in cruising combination up to 180 revolutions per minute. The dock trial proved a success from start to finish, no casualty of any kind occurring. In this connection, in order to get

a test on the boilers, No. 1 fire room was used the first day of the trial, No. 2 the second day, No. 3 the third day, and No. 4 the fourth day.

During the period between August 15th and October 16th, I can safely say that the officers and men of the department averaged every day, Saturdays and Sundays, included, eighteen working hours below without complaint or murmur. It seemed to be a matter of great pride and determination with them. We had heard many reports that the *Vaterland* would never leave the dock, and many letters came threatening some officer or man in the department. Of the men and petty officers we were compelled to work with, I should say that twenty per cent of them had never been on board a ship previous to their reporting here. They were all recruits direct from recruiting rendezvous, with the exception of a few C. P. O.'s who came from the fleet. During all our overhaul and repair we had no plans to guide us, all lines and arrangements had to be traced out by the officer concerned, who submitted sketches to me. These sketches have been forwarded to the Bureau of Steam Engineering.

We found three logs made by the Germans on the *Vaterland*. These logs, I believe were forwarded to Washington, but to the best of my memory the speeds on these three trips averaged for the entire voyage 22.4, 21 and something over 20 knots, with an average coal consumption per day of about 1,100 tons, running up to about 1,157 for one voyage. The present consumption of this vessel at 20 knots is 816 tons per day east bound, and 720 west bound. West bound we use Welsh coal. We have never steamed at 22 knots for any period long enough to obtain a point.

Going to Liverpool on a trip during an emergency she maintained a speed of 181 revolutions per minute for a short period of time until a slow bell was received.

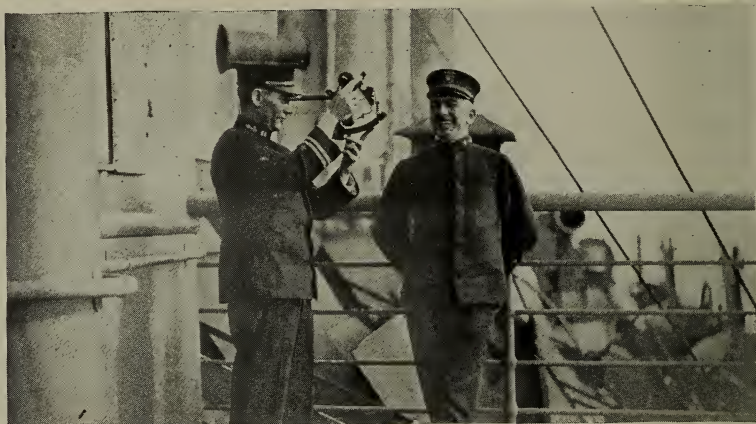
Since the war service of the vessel started until November 11, 1918, the *Leviathan* has never had an engineering casualty of any description, nor has the ship been delayed due to any cause in the engineering department.

The Medical Department

By DR. DUNLAP

The Medical Department is represented by the Senior Medical Officer, Commander F. A. Asserson, M. C. U. S. N., four Junior Medical Officers with the rank of Lieutenant each, one Chief Pharmacist, one Pharmacist, two Chief Pharmacist's Mates, and about one hundred and thirty Hospital Corpsmen. There are also eight nurses, in charge of Miss Mary M. Robinson, Chief Nurse, U. S. N. The units composing the Department are as follows: Office of the Senior Medical Officer; office of the Medical Officer of the Day; Major and Minor Operating Rooms; Laboratory; Sick Officers' Quarters of ten beds; Medical and Surgical Wards with one hundred and thirty-two beds; Isolation Ward with forty beds; total, one hundred and eighty-two beds; Diet Kitchen; two Sick Call Stations; Dispensary; Mental Ward; Guinea pig houses.

The history of this department dates from July, 1917, when the first medical officers, Drs. F. J. Carroll, and E. M. Hudson came aboard. These officers, both Lieutenants in the U. S. Naval Medical Corps, were on duty at the U. S. Naval Hospital in Brooklyn when our government assumed control of the *Leviathan*, and they were ordered to report aboard for duty. The vessel at that time being just as the Germans had left her. Drs. Carroll and Hudson at once began tentative plans for a medical department capable of handling the sick among the thousands of troops the *Leviathan* was being rapidly fitted to carry. Plans were drawn by them converting the social hall on A-deck into wards and operating rooms. The orchestra stage at the forward end of the hall was to be cut away, lowered to the level of the deck and that space utilized as two operating



CENTER PICTURE: LEFT TO RIGHT—"OUR NAVIGATORS"
LIEUT. J. L. BEEBE, LIEUT. COM. H. C. CUNNINGHAM.

BOTTOM PICTURE, LEFT TO RIGHT—DR. J. E. PORTER, DR. T. C. HEMINGSEN,
DR. F. A. ASSERSON, DR. W. F. RATHBUN, DR. H. F. HOWELL,
DR. E. F. CROFUTT, PHARMACIST F. B. REDMAN.

T H E U. S. S. L E V I A T H A N



THE LEVIATHAN NURSES

rooms with a sterilizing room. Wash rooms, toilets, linen lockers, and an Isolation Ward were also provided for. Places fore and aft were chosen as sick call stations and Dispensary.

On August 9, 1917, Commander John J. Snyder, M. C. U. S. N., reported aboard as the first Senior Medical Officer. The plans for the medical department were submitted to Dr. Snyder and to the Naval Constructor, and were later adopted by the Bureau of Medicine and Surgery. Before the first trip three more medical officers reported, viz: Lieut. Commander G. T. Vaughan, U. S. N. R. F., Lieut. Max M. Braff, M. C. U. S. N., and Lieut. S. Strauss, M. C. N. N. V., so that on the first trip there were five medical officers, besides the Senior Medical Officer. After the trial trip to Cuba the *Leviathan* went to Liverpool. The amount of work was found to be too much for the number of doctors, and upon returning to the States another Medical Officer was requested. Lieut. A. K. Dunlap, M. C. U. S. N., was sent aboard in February, 1918, so that on the second trip seven doctors were aboard. On subsequent trips

into New York, Lieut. Robt. Lorentz, M. C. U. S. N., Chief Pharmacist C. I. Campbell, U. S. N. R. F., and Lieut. Edward Crofutt, M. C. U. S. N., were sent aboard for duty. During the month of May, 1918, Commander Snyder left to assume his new duties as Fleet Surgeon, and his position on board as Senior Medical Officer was assumed by Commander H. A. May, M. C. U. S. N. Lieut. Harold Hulbert, M. C. U. S. N., and Pharmacist F. B. Redman also joined the ship about the same time. Later in the summer the medical corps was further strengthened by the addition of Lieuts. Harry L. Howell and John E. Porter, U. S. Navy Medical Corps. In December, 1918, Dr. May was detailed to duty ashore and the duties of Senior Medical Officer assigned to Commander F. A. Asserson, M. C. U. S. N. Lieuts. Walter L. Rathbun, Thos. Sheppard, and A. T. Weston, M. C. U. S. R. F., reported at the same time. As new officers reported on board from time to time, others were relieved and detailed elsewhere. For the greater part of the time since the ship has been in commission the medical department has had nine doctors on board.

As the *Leviathan* transported nearly one hundred and twenty thousand men to Europe during the war, and has brought back nearly as many since, it requires no active imagination to realize that the medical department has had its hands full. The percentage of sickness bound to occur among thirteen thousand men was enough to keep nine doctors busy, and this was only a small part of their work. Sanitation on such a huge ship was in itself a problem. Samples of food and water had to be examined and accepted or rejected; troop compartments and every nook and corner of the ship were inspected daily and a high sanitary standard maintained; quotative examinations of the air in the troop spaces were made at different hours both day and night to determine the temperature, humidity, and amount of carbon dioxide in these places; these observations were made the subjects of various reports and resulted in the installation of new ventilating systems and correction of those already in operation; during threatened epidemics of infectious diseases it was often necessary to take

cultures and do other laboratory work among hundreds of men. In July, 1918, the *Leviathan* began transporting wounded men and has carried a large number of them to date. The wounded required much attention and the manner in which they have been cared for on board this vessel reflects great credit upon the medical department.

A new departure for ships of war was the Nurse Corps. The corps consists of Mary M. Robinson, Head Nurse, U. S. N., Irene Reed, U. S. N., Charlotte F. Hyde, U. S. N., Ruby F. Nutting, U. S. N. R. F., Ruby Russell, U. S. N. R. F., Madelon Stowell, U. S. N. R. F., Alice B. Newcomb, U. S. N. R. F., Vera O. Harmon, U. S. N., Mary A. O'Neill, U. S. N. R. F. These were the first nurses who ever had duty on a man-o'-war. Their duties have been supervisory over the hospital corps, and their training and experience as nurses have made them of invaluable assistance.

THE INFLUENZA EPIDEMIC

The following are extracts from reports of the influenza epidemic submitted to commanding officer by Lieut. Com. H. A. May, M. C., October 11th, 1918:

There were 260 officers and 8,873 enlisted men of all grades reported as present when the ship left the dock in Hoboken. These made up the personnel of several organizations—the 323d Field Signal Corps, the 401st, 467th and 468th Engineers, the 302d Water Tank Train, a September Automatic Replacement Draft, the 57th Pioneer Infantry, and the 73d Medical Replacement Section. In addition, there were 191 members of the 60th and 62d units, Army Nurse Corps.

The ship sailed on September 29th. Because troop space H-8 was deemed unfit for occupancy by reason of inadequate ventilation, troops quartered there were moved on the 30th to other compartments, causing congestion in many spaces. All available bunks in the sick bay were filled by army sick before the morning of September 30th. Arrangements were then made to empty F room section 3, port side, containing 200 standees. These bunks were filled within a few minutes with sick men

picked up from the decks. When this space was found to be insufficient E room section 2, starboard side, 415 bunks, was vacated (October 1st), and the occupants sent down to H-8 regardless of improper ventilation. On October 3d, the port side of E room section 2, 463 bunks, was vacated by the Army guard, those sick in F. H. S. 3 were moved up to E. R. S. 2, and the guard sent below to be scattered wherever they could find space. Thus, on the night of October 3d, there was, beside the sick bay, a ward on E-deck capable of bunking 878 men. As the bunks are arranged four in a tier, one above the other, the top bunk could not be used for the sick, except in emergencies, because nurses could not climb up to them nor could sick men climb down to go to toilets.

The Navy medical officers confined their efforts mostly to those in the sick bay spaces, while all the sick quarters below were turned over to the army medical officers. The army chief surgeon, Colonel Decker, and two of his juniors became ill on October 1st, leaving but eleven army doctors to hold sick call, treat patients below, and care for about thirty nurses and twenty officers who were ill in rooms. The navy medical officers stood watches in E. R. S. 3 at such times as they could be spared from the sick bay work, and relays of army nurses were assigned to duty below, with the pneumonia cases in the isolation ward, with sick officers in the officer's ward, and with sick nurses and officers in staterooms. In fact every available medical officer, nurse and hospital corpsman was utilized to the extreme of endurance. Below, in the E-deck ward, every possible appliance for the care of the sick was furnished to the army surgeons on duty. The commissary officer placed at our disposal stewards, cooks and mess men, and furnished just the kind of food required, in the best possible fashion. The Medical Department of the ship owes, and I wish here to acknowledge, a great debt of gratitude to the Commissary Department, and to Paymaster Farwell and Chief Commissary Steward Flowers, especially, for their co-operation in this matter, the success with which they gave comfort and aid to the sick, and removed from our shoulders the always worrisome burden of feeding men unable to eat regular diet.

T H E U. S. S. L E V I A T H A N

COURSE OF THE EPIDEMIC

This was influenced materially by these main factors:

First, the widespread infection of several organizations before they embarked, and their assignment to many different parts of the ship.

Second, the type of men comprising the most heavily infected group. These men were particularly liable to infection.

Third, the absolute lassitude of those becoming ill caused them to lie in their bunks without complaint until their infection had become profound and pneumonia had begun. The severe epistaxis which ushered in the disease in a very large proportion of the cases, caused a lowering of resisting powers which was added to by fright, by the confined space, and the motion of the ship. Where pneumonia set in, not one man was in condition to make a fight for life.

As noted above, the sick bay was filled a few hours after leaving Hoboken. All pneumonia cases were placed in one isolation ward at the beginning, and another isolation unit was set aside for measles and mumps, both of which diseases were present among the troops. The other isolation units were first filled with influenza cases and later with pneumonias. Until the fifth day of the voyage, few patients could be sent to duty because of great weakness following the drop in temperature as they grew better. Only the worst cases in E-deck ward were sent to sick bay at any time, and all were potentially pneumonias. The E-deck ward was more than full all the time and there were many ill men in various troop spaces in other parts of the ship.

There are no means of knowing the actual number of sick at any one time, but it is estimated that fully 700 cases had developed by the night of September 30th. They were brought to the sick bay from all parts of the ship, in a continuous stream, only to be turned away because all beds were occupied. Most of them then lay down on the decks, inside and out, and made no effort to reach the compartment where they belonged. In fact practically no one had the slightest idea where he did

belong, and he left his blankets, clothing, kit, and all his possessions to be salvaged at the end of the voyage.

During October 1st, every effort was made to increase hospital space below, as noted above. The heretofore satisfactory arrangements for army sick call were not adhered to by the army medical officers, and hundreds of men applied for treatment at the E-deck ward instead of going to the twelve outlying sick call stations. On this day, Colonel Decker, the Chief Army Surgeon, became ill. As he was the only army medical officer who had had army experience in administrative matters there was now no competent head to the army organization. Two other medical officers also became ill and remained in their rooms to the end of the voyage.

Late in the evening of this day the E-deck ward was opened on the starboard side and was filled before morning. Twenty army nurses were detailed for duty during the night. When patients were brought up, their mates carefully left their blankets and clothing below and scouting parties had to be sent through the compartments to gather up all loose blankets for use of the sick. Fortunately we had about 100 army blankets in the medical storeroom which had been salvaged on other voyages. These were used while they lasted.

HORRORS OF WAR

The conditions during this night cannot be visualized by any one who has not actually seen them.

The morning of October 2nd brought no relief. Things seemed to grow worse instead of better. Cleaning details were demanded of the army, but few men responded. Those who came would stay awhile and wander away, never to be seen again. No N. C. O.'s were sent, and there was no organization for control. The nurses made a valiant effort to clean up and the navy hospital corpsmen did marvels of work, but always against tremendous odds. Only by constant patrolling between the bunks could any impression be made upon the litter and finally our own sailors were put on the job. They took hold

like veterans and the place was kept respectably clean thereafter.

The first death from pneumonia occurred on this day, and the body was promptly embalmed and encased in a navy standard casket.

When evening came no impression had been made upon the great number of sick men about the decks and in their own bunks. So arrangements were made to enlarge the hospital space by including the port side of E. R. S. 2. On October 3rd this was accomplished and from that time to the end of the voyage we had enough bunks to accommodate practically all the worst cases. Three deaths occurred this day and all were embalmed and encased. After going through the hospital and troop spaces that night it was estimated that there were about 900 cases of influenza in the ship. In the wards we sent back to bunks below all men whose temperature reached 99 and kept all bunks filled with cases of higher fever.

October 4th, seven deaths during the day. The sea was rough and the ship rolled heavily. Hundreds of men were thoroughly miserable from seasickness and other hundreds who had been off the farm but a few weeks, were miserable from terror of the strange surroundings and the ravages of the epidemic. Dozens of these men applied at the wards for treatment and the inexperience of army doctors in the recognition of seasickness caused a great many needless admissions to the hospital.

Many officers and nurses were ill in their rooms, and required the constant attention of a corps of well nurses, and an army medical officer to attend them.

Each succeeding day of the voyage was like those preceding, a nightmare of weariness and anxiety on the part of nurses, doctors, and hospital corpsmen. No one thought of bed for himself and all hands worked day and night. On the 5th there were 10 deaths, on the 6th there were 24, and on the 7th, the day of arrival at our destination, the toll was 31. The army ambulance boat was promptly alongside, and debarkation of the sick began about noon. The sick bay was

cleared first and we at once began to clean up in preparation for the wounded to be carried westbound. E-deck was then evacuated, but all the sick could not be handled before night, about 200 remaining on board.

On the 8th these were taken off by the army, but not before fourteen more deaths had occurred. Although on this day almost the entire personnel (army) had gone, the nurses remained until the last sick man was taken off.

PNEUMONIA

It is the opinion of myself and the other medical officers attached to the ship that there were fully 2,000 cases of influenza on board. How many developed pneumonia there are no means of knowing. Over 75 cases of the latter disease were admitted to the sick bay, most of them moribund. Of these, 3 improved so much that they went back to their compartments, 29 were transferred to hospital ashore, and about 40 died. As the records required to transfer patients from the army to the navy medical officers were furnished in but few cases, and as my records embrace all the dead, I had no means of knowing how many died in the sick bay and how many in the E-deck ward. Cases of pneumonia were found dying in various parts of the ship and many died in the E-deck ward a few minutes after admission. Owing to the public character of that ward, men passing would see a vacant bunk and lie down in it without applying to a medical officer at all. Records were impossible, and even identification of patients was extremely difficult because hundreds of men had blank tags tied about their necks. Many were either delirious or too ill to know their own names. Nine hundred and sixty-six patients were removed by the army hospital authorities in France.

DEATHS

Ninety-one deaths occurred among the army personnel, of whom one was an officer, as follows:

October	2.....	1 death
"	3.....	3 deaths
"	4.....	7 deaths
"	5.....	10 deaths
"	6.....	24 deaths
"	7.....	31 deaths
"	8.....	14 deaths
"	10.....	1 death

The sick officer was treated in the open air on B deck, had a special army nurse during the day, and a navy hospital corpsman at night.

HOSPITAL CORPS

I cannot speak in terms of sufficient commendation of the work of the hospital corps of this ship. Every man was called upon to exert himself to the limit of endurance during the entire round trip. No one complained, every man was on the job. Many of them worked twenty-four hours at a stretch amid conditions that can never be understood by one ashore or on a man-of-war. Some of the embalming detail, worked at their gruesome task forty-eight hours at a stretch without complaint, and at the end I had to drive them away to a bath and bed.

I have learned that the following named men of the Commissary Department voluntarily remained on duty with the sick on E-deck during the entire voyage.

George Willis	CCS
H. L. Ringrose	SC-2
A. Barbel	SC-4
R. Steinman	SC-4

Had we been in the midst of smallpox or plague they would doubtless have done the same. The actual danger to all hands was extremely great and all these men deserve the highest commendation for their actions.



FEEDING THE TROOPS

As soon as the decision was made that the NAVY would have charge of the commissary departments on the transports, plans were promptly made to effect the most complete and satisfactory arrangements for the subsistence of the troops en route. A board of three expert commissary officers was appointed with instructions to prepare a well-balanced standard bill-of-fare for use on board all of the transports. The bill-of-fare for a fourteen-day period submitted by the board, was approved and copies forwarded to the commanding officers of all transports for their guidance with the request that it be followed as nearly as possible. Experienced officers of the Supply Corps were then recommended for assignment to the transports and nothing was left undone which would contribute in any way to perfect arrangements for the satisfactory feeding of the troops. This work was new to the navy, as transports were heretofore operated exclusively by the army.

On this account and because, as stated by the Secretary of the Navy, "The success of the transfer of the army troops will depend to a large extent on the conduct of the commissary service on each vessel.

"It is especially gratifying to be able to report that the subsistence of the troops en route overseas has been satisfactory in every respect. This fact is confirmed by reports received from time to time."

This extract from the Paymaster General's report marks the success of the enormous task given the Bureau of Supplies and Accounts of feeding the A. E. F. while being carried overseas on American transports.

The menus mentioned in the report actually originated from the *Leviathan*, and the general instructions at that time

were to "live up to the standard required by the sample menu, and to do better, if possible." This was the slogan of all the general messes in the transport service, and it is a well-known fact that the army as a whole has had nothing but praise for the Navy Commissariat.

The *Leviathan*, being the largest carrier of all the transport fleet, naturally placed the supply officer, Paymaster Geo. C. Schafer and his assistants, headed by H. B. Judkins, Ensign, U. S. N. R. F., Pay Corps, on their mettle to make a success of this enormous undertaking, although at that time and even up to the time the first meal was served to the troops, the huge task was hardly realized.

During the period of fitting out and on the first trip, there were only five men in the Commissary Department who were known to be familiar with the navy general mess requirements and navy discipline, the rest of the Commissary Department was made up from men taken from all walks of life—lawyers, college men, horseshoers, business men, actors, etc.; only about thirty men having any experience as cooks and bakers, and among these only a comparative few who had any seagoing experience. Even these men were of an unknown quantity until tried out, in the actual experience of cooking and serving food to 10,000 troops and crew, the proportionate number carried the first trip through the war-zone. This was the biggest feeding task ever undertaken in the history of the maritime world.

These men came from various sources of recruiting, mostly from the headquarters and commissary schools connected with the Third Naval District, arriving in batches of one to ten almost every day until ready to sail. None of them came fully equipped or uniformed and the first real muster of the Commissary Department was unique in the history of the ship, about three hundred men falling in on B-deck. An attempt was made to drill them into something near the navy standard. At that time it seemed a hopeless task—none seemed to know what was required of them, even to the simple movement of opening ranks for inspection. The inspection was a joke, no one in uniform,

and the expression "Coxey's Army" would describe the general appearance of the men.

However, the spirit was there, and in an incredibly short time the men were properly uniformed and at the first crew inspection made a very creditable showing, even in the opinion of the old-timers.

Most of these men had the American knack of adaptiveness and soon fitted into the duties required of them; showed such a splendid desire to make good that after the first trip we were able to compare the Commissary Department, and by no means discredibly, with that on the huge British transports, *Olympic* and *Mauretania*.

The system steadily improved, and it is safe to assume that we are unexcelled by any other similar sea-going organization.

Because of the "training afloat" system laid out by the Navy Department it is estimated that about 100 trained men have left the *Leviathan*, trained by actual experience in cooking and baking, thus giving the growing navy a trained personnel, not only cooks and bakers, but American man-o'-war's men, developed as such by the stern requirements of war conditions.

HORSESHOER THINKS COOKING EASY

Each man reporting aboard was required to fill out a questionnaire blank stating experience, etc. This was done so that men could be placed to the best advantage in the galley, bakery, storerooms and offices. Some of the answers were laughable. For instance, one stated that his sole experience was cooking for his sisters when mother was obliged to go out. Another had been a horseshoer for about eighteen years, another had no experience, but he knew that cooking was very easy to learn and that he was there for that purpose. One man made a strong bid for the billet of head waiter and informed the Commissary Steward that if he gave him the job he would send at once to Chicago for his Tuxedo.

GERMAN SECRET SERVICE INTERESTED

During this time it was well known that the German Secret Service was much interested in the *Leviathan* and for that reason all new arrivals were carefully watched. One suspicious commissary recruit was picked out and turned over to the authorities. He was so clearly German, both in speech and appearance, that it would have been impossible for him to get by, and although nothing was heard of his fate, it is safe to assume that he was interned in a safe place until the end of the war.

The actual fitting out was a tremendous problem, most of the German kitchen machinery and utensils were found either in bad condition or useless for the coming needs and almost a new installation was built, using, however, the German kettles and ranges when possible, discarding anything not absolutely essential. It was often a matter of considerable thought and discussion to decide what should be kept and what discarded.

There were found on the ship seven complete kitchens, counting the two Jewish kitchens which were designed for Kosher cooking. These were intended to provide for the large number of Jewish immigrants carried over in the third class or steerage compartments and all these galleys had been splendidly fitted out to care for about 5,000 passengers and 1,000 crew. As the problem was to prepare for about 15,000 it can be readily seen that some drastic changes were required.

In connection with this it might be well to state that the first letter written about commissary affairs asked that 27 steam kettles of 100 gallons capacity, 3 dough mixers of two barrel capacity, and 7 navy standard bake ovens be obtained. These were installed in addition to the German equipment left, after the rip-out period was finished.

All except the first and second class galley were dismantled. All the kettles and one large electric bake oven were installed in the first class galley compartment, thus consolidating the cooking machinery in the present spaces which were renamed the Troop Galley.

On E-deck aft, the third class galley was ripped out and a blacksmith and coppersmith shop installed. The third class dining room, later the engineer's force mess room, became temporarily the crew mess room until the number became too large and the first class saloon was used until the deck force quarters were fitted up. It was during this time that a large number of the crew were ptomaine poisoned by eating hash that was prepared from infected corned beef, probably made so by defective tinning. The entire Medical Department was busy all that day, but luckily no lives were lost. The rumor leaked out that in some way "Fritz" had got in some fine work, but this was denied upon investigation.

STORAGE

Another phase of the preparation presented itself, the storage of provisions. The combined experience of the leading men in the department was brought into play to solve the many problems involved, to provide for storing and keeping of over two millions of pounds of provisions in the space allotted. The principal items and their quantities required for this loading were as follows: 200,000 lbs. of flour, 60,000 lbs. tinned meats, 25,000 lbs. salt meats, 120,000 lbs. smoked meats, 260,000 lbs. fresh meats, 25,000 lbs. turkey and fowl, 30,000 doz. eggs, 140,000 lbs. beans, 75,000 tinned vegetables, 420,000 fresh vegetables, 22,000 cereals, 145,000 dried, tinned and preserved fruits, 175,000 fresh fruits, 40,000 lbs. coffee, 3,000 lbs. cocoa, 2,500 lbs. tea, 60,000 evaporated milk, 5,000 qts. fresh milk, 5,000 qts. of cream, 40,000 lbs. fresh butter, 15,000 lbs. of lard, 15,000 lbs. salt, 175,000 lbs. of sugar.

These quantities were estimated to subsist 10,000 troops twenty-five days and 1,400 crew one hundred and twenty days.

Careful consideration had to be given to the location, size, drainage and estimated temperatures of the various storerooms and cold storage. Also the items of provisions and quantities of each item required and the storeroom best adapted by size and accessibility. This was worked out so successfully that when the actual provisioning was finished only about five hun-

dred packages were left out of the allotted spaces due to the fact that at the last moment, passages had to be left in several rooms to give access to manhole plates leading into the double bottoms.

The cold storage spaces were an unknown quantity, only uncertain data (not from German sources) being available concerning the temperatures of the various compartments. However, this part of the provisioning was also successfully finished and it might be well to state that since the first loading, to the end of hostilities, only about 3,000 pounds of meats, and 6,000 pounds of fruits and vegetables were lost through deterioration.

Enough provisions were carried in the ship to approximate the supply of ten battleships and one supply ship. This comparison was often used when explaining to distinguished guests the enormous size of the *Leviathan's* larder.

During this phase of the work great consideration was given to the method of issuing the food to the individual soldier. No data was obtainable except the general requirements of the army regulation. How to make these requirements fit into the planned system of feeding was a problem, which however was so successfully solved that the *Leviathan* system of issue was, either in whole or in part, practically adopted for all transports.

The general scheme is an elaboration on a rough, but efficient system of feeding landing forces of sailors at Guantanamo, where it was the custom to land the various ship battalions and go into camp at Deer Point for small arms practice.

The equipment then was a limited one, namely, a mess table at the foot of each company street and four syrup barrels filled with soap and water for washing the mess gear. From this crude idea was built up a system that operates as follows:

In the after end of the troop mess hall are placed twelve tanks fitted with direct steam jets. These tanks have specially fitted tops and are capable of holding eight insets or food containers, each container holding about seventy pounds of food or coffee. The steam jet is turned on when the tank is filled with the food containers, thus enabling the food to be placed ready for serving, some time before the messing, keeping the food warm and palatable.

This tank, or serving station, contains such items of the meal as meats, gravy, vegetables and beverages. In addition to each serving station is an auxiliary serving table from which is served, bread, butter and desserts. Each serving station and table has a detail of four men and a messing sergeant who draws the food from the galley and serves to the men as they file past their particular station.

The men march from their compartments under control of their compartment officer in four lines, two from forward and two from aft, meeting on E-deck at the grand staircase leading into the troop mess hall coming down the staircase four abreast. When in the mess hall the column is split into twelve lines and pass the serving stations at a slow walk through to the mess tables. When finished, they go on to the forward end of the mess hall, where there are the washing tanks somewhat similar to the tanks at the serving stations. These tanks have hot soapy and clear water in which the men wash and rinse their mess gear, returning to their compartments by other established routes. All the mess lines, both to and from the mess, are kept under control so that in case of an emergency during the messing the men may be brought to their proper stations quickly and without confusion. This arrangement of the messing lines and mess hall has kept intact and separate the feeding space of the troops from their sleeping quarters, an arrangement of much sanitary value and in evidence only upon United States Navy transports.

WORLD'S FEEDING RECORD

The system holds the world's record for feeding the largest number of men in the shortest period of time, ashore or afloat. Nine thousand men in an average time of ninety minutes were fed. The best time, however, for the same number of men was sixty-seven minutes; this means that during the messing one soldier was served a ration every thirty-six seconds.

It must be remembered that these huge commissary problems has been solved with deep thought and precision, overcoming the enormous difficulties presented on shipboard by the

confined space and the mass of floating population equal that of a large town or small city.

On the afternoon of December 14th, the day previous to the starting on that historical first trip, the first meal was served. Previous to serving this meal, the carefully planned organization had to be put into operation. This required numerous army details for messing, kitchen work and working parties. These reported to the commissary office and after being properly stationed were given instructions to carry on the messing.

This was done about two hours after the troops were embarked and the mess movement was started in the troop mess hall. There were many hitches in the mess movement to the serving stations, but all the troops were fed in about two and one half hours and after the second day the messing organization "shook down" so well, that the Commissary Department was able to report that the messing system was a success. In fact, the first meal had not been going ten minutes when it was realized, much to the relief and joy of those who had worked so hard on the fitting out the messing organization, that the system planned was very effective. One strict rule had to be made in connection with the embarkation, which was that no meals would be served until all messing details were stationed, and although it seemed harsh, an amusing incident proved its value. Soldiers are akin to sailors, inasmuch as they are blessed with healthy appetites, so that invariably when troops arrive aboard they are hungry, and if not restrained naturally gravitate to the kitchen. The first troops aboard followed their natural instincts and wormed their way into the galley. Their tales of hunger told to the sailor-cooks in the galley so worked on their sympathies that a relief party began issuing sandwiches. In a few minutes by some mysterious way the good news was passed that the good-natured sailors were handing out "chow" and in about ten minutes a thousand hungry troopers were crowded into the galley clamoring for "eats." The resulting confusion almost upset the embarkation and a hurried S. O. S. to the army headquarters was made to get the soldiers to clear the galley. It is needless to say that the galley cooks never allowed

their good nature to get the best of them again during other embarkations.

Although the start was splendid it must not be thought that it was plain sailing on following days for the Commissary Department. In fact, it was much to the contrary and the men who had the responsibility of the undertaking speak of that trip as a nightmare.

The winter days were short and war conditions required that nearly all lights, inside the ship and out, must be extinguished one hour before sunset. This condition meant that most of the work had to be done in almost total darkness. No refuse could be disposed of until one hour after sunset and all wood had to be burned. The men detailed for this purpose were compelled to grope their way about a strange ship in the dark.

The galley and bake shop were conducted under much the same conditions, but the troops were fed. The *Leviathan's* standard bill-of-fare was carried out in every detail.

WHO SAID PIE?

Because the *Leviathan* was expected to arrive in port on Christmas eve, a regular navy holiday dinner with all the fixings was given to all hands on the day before. This dinner was given complete and went off smoothly with but one hitch. As said before, soldiers have healthy appetites and a strong affection for pie, and, in order to get more pie than their share, a great many doubled back in the mess lines and perhaps more than once, for there were over 15,000 rations of pie served out on that strenuous day. For a while it looked as if we were going to be overwhelmed and that the last thousand troops to go through the mess lines would not get any holiday dinner, but a good substitute dinner was provided and it is recorded that everybody was made happy.

All this work was accomplished under such adverse conditions and with the added strain incidental to our first trip through the war zone, that it was with relief we arrived in port

and fed the soldiers their last navy meal alongside the landing stage in Liverpool. Each man leaving the ship was given a lunch to stay him on the next stage of his journey and with it went the good wishes of the *Leviathan's* crew. The practice of providing a lunch to debarking troops has been carried out in all succeeding disembarkations.

IMPROVEMENTS

The big feat was accomplished and the rest given by the necessarily long stay in Liverpool was well earned and enjoyed. As a result of the experience of the trip, many improvements were made in the messing organization and galley installation, the most noteworthy of which was the abandoning of the galley forward, moving the kettles, etc., to the troop galley and giving up the two other mess hall spaces for berthing—messing all the troops in the present large mess hall. This brought about a consolidation of the general mess and made the task easier.

Subsequent trips saw consistent improvement until a new record was established during the thirteenth trip when about eleven thousand home-coming troops were fed in seventy-six minutes best time and an average time of about ninety minutes. Over 150,000 overseas troops have been fed on the *Leviathan's* trips and the good ship's commissariat has become famous wherever the A. E. F. have gone. The *Leviathan's* apple pie has been, to quote a returning wounded soldier, placed second in popularity with the justly famous Salvation Army doughnut.

The success of the first trip was undoubtedly due to the earnest work of all hands under the able direction of Paymaster Simon Pietri, Supply Officer and Assistant Paymaster H. B. Judkins. The work in the galley was ably directed by ship's cook 1st class, later Chief Commissary Steward, Martin J. Flynn, and it can be said without fear of contradiction, that the entire success of the enormous undertaking depended largely on his splendid judgment and ability. This must in justice also be said of Chief Commissary Steward W. J. Linn, who took entire charge of the stores and whose long and varied commis-

sary experience helped us over difficulties which at times seemed unsurmountable.

Subsequent trips under the direction of Paymaster Farwell and Paymaster Edwards, his successor and present Supply Officer, have brought in their wake many improvements so that now the *Leviathan's* Commissariat is considered the standard of its kind.

The following is a sample of a day's menu on board the *Leviathan*:

MENU

SUNDAY, APRIL 20, 1919

<i>Breakfast</i>		<i>Dinner</i>	
Oat Meal	Milk	Turkey	
Boiled Eggs		Tinned Asparagus	Mashed Potatoes
Fresh Fruit		Pie and Cake	
Bread and Butter		Bread and Butter	
Coffee		Coffee	
<i>Supper</i>			
	Head Cheese		
	Creamed Potatoes		
	Bread and Butter		
	Coffee		

Quantities Used to Provide the Above

	Lbs.		
Oat Meal	1150	Milk	480
Milk	1056	Sugar	400
Sugar	1500	Salt	40
Eggs (doz.)	3180	Cake	5740
Butter	660	Head Cheese	425
Apples	6470	Potatoes	800
Coffee	400	Coffee	200
Milk	480	Sugar	200
Salt	10	Salt	20
Turkey	15581	Bake Shop:	
Chicken	2021	Flour	7800
Asparagus	2856	Yeast	135
Mashed Potatoes	5850	Lard	130
Butter	675	Salt	100
Coffee	400	Sugar	200
		Cinnamon	4

Rations issued to 13,699.

The Supply Department

“When do we eat? When’s pay day? When can I draw a pair of shoes? Got any ‘Bull’-an’ soap-an’ peanut brittle? Can you get us a piano, an anchor, a car of lumber and a dozen 13 inch gadjets before we shove off?”—questions that are part of the sailors’ existence and the cause of the Supply Officer’s dilemma.

How well they are answered speaks volumes for the organization, zeal and efficiency of the Supply Department. To feed fourteen thousand men (and a thousand or so women, generals, admirals, diplomats, lieutenants and bo’sns); to operate canteens throughout the ship that rival in their activities Woolworth’s chain of stores; to keep the storerooms stocked with every conceivable kind of supplies which are or may in any emergency be required in the many departments of the ship; to clothe properly the crew of more than two thousand men; to keep the accounts of these men and to pay them twice a month; to—but limited space does not permit. Enough to state that the patience of Job, the wisdom of Solomon, the agility of Mercury and the persistency of Bryan are among the requirements necessary to manage successfully the diversified activities of the Supply Department. Verily, the life of the Supply Officer is far from being a bed of roses.

Five distinct divisions of the Supply Department were organized during the early days of going into commission—Commissary, Disbursing, Sales, Storekeeping, and Officers’ Mess—each in charge of an Assistant Supply Officer. The original plans of organization and operation, evolved by Captain G. C. Schafer, were developed and carried out by Lieut.-Comdr. F. Simonpietri, upon whom rested the responsibility of filling the office of Senior Supply Officer on the *Leviathan’s* maiden trip with more than ten thousand men on board. Under his

able guidance the routine of the various divisions were systematized, improved and proven. Each subsequent trip brought forth new problems which were masterfully dealt with and solved by Lieut.-Comdr. Simonpietri and his able successors, Lieut.-Comdr. N. B. Farwell and Lieut.-Comdr. E. C. Edwards. A silent tribute to the results achieved by these Supply Officers is the fact that to the large transports commissioned later the *Leviathan* was called upon to furnish many trained men as a nucleus for the Supply Departments of these new ships, where *Leviathan* methods were introduced and are being successfully carried out.

During the early voyages Assistant Supply Officers Colburn, Barker, Poggi, Waters and Judkins wrestled with their respective divisional duties by day, and by way of diversion alternated as Senior Lookout Officers by night, making hourly rounds of the lookout stations, from the forepeak to the after crow's-nest, fair weather and foul. Inclined a bit toward rotundness, it was a ne'er to be forgotten privilege to see the form of "Jeff" Colburn silhouetted against the starry heavens, en route to the crow's-nest. "Behold!" quoted "Doc" Carroll one cold evening, when he espied "Jeff's" figure looming in the shrouds like a square-rigger, "behold yon sylph-like Romeo seeking his fair Juliet!"

Other assistant supply officers who have been assigned to the *Leviathan* for duty or instruction are Messrs. Carter, Wrigley, Bishop, Harris, Schuler, Hoffman, O'Shaughnessy, Stevens, Ingram, Finstemacher and Miller. Of the "old timers" but Waters and Poggi remained to continue "carrying on" in charge of the Storekeeping and Sales Divisions respectively.

SALES DIVISION

The Sales Division comprises five ship's stores (canteens) and the clothing and small stores issue room. With troops on board, the canteens, which are located in accessible parts of the ship, make approximately ten thousand separate sales each day, with a total daily cash receipt of about \$5,000. The largest day's business amounted to \$6,498, another record to

be added to the many laurels already won by the Rainbow Division, units of which were being transported at the time. As one of the canteen storekeepers put it, "If those Rainbows can fight like they can spend, I'd like to see them in action!"

On the shelves of these canteens may be found the usual line of necessities—and luxuries—carried in all Navy canteens, but in unusual quantities; from the most commonplace pair of shoe laces to the most dainty package of bon-bons. Naturally, a vast amount of small items must be handled to make up \$5,000 worth of daily sales. And these sales are made, not in leisurely lady-like fashion, over counter and show-case, but through the canteen window to a never-ending line of clamoring sailors and doughboys by but five storekeepers—one to each canteen. These five "salesmen," especially selected and trained for this type of duty, wait on more "customers" in a day, it is believed, than any other sales people in existence, including the busiest dispenser of wet-goods on Broadway during that torrid spell just prior to July 1st, 1919.

In view of the reported atrocious activities of the Hun in our country during the war, every precaution was taken to procure uncontaminated supplies for use of the crew and troops. As a safeguard, samples of edible stores taken on board were submitted to Surgeon Dunlap for examination in the ship's laboratory.

While the duties of the sales force are necessarily active and exacting, discretion and tact are exercised in handling such a large body of waiting "customers," which accounts for the fact that errors and "kicks" are few and far between.

In studying the likes and dislikes of the troops being transported, in order to ascertain the varieties and quantities of canteen stores to carry for sale, it was readily discovered that tastes of the various units differ as widely as do their geographic origins. Hence, when a division that originated in Dixie embarks, peanut candy to the tune of from six to eight tons will be consumed during the voyage, together with prodigious packs of cigarettes; when a mid-western outfit takes passage, peanut candy and cigarette sales fall off, but large inroads are made

in the stock of chocolates, chewing tobacco and Navy postcards; when far westerners like the Sunset Division come aboard mountains of "Bull Durham," brown cigarette papers, caramels and playing cards are broken out of the store rooms, for the boys of the West are not strong for chocolate and peanut candy, though they do "roll their own" and wear out the ship's police force by endeavoring to keep pinochle games going in every conceivable part of the ship. But regardless of geographic origin, stormy weather creates desires much akin to all dough-boys—a desire to lay off such joys as chocolates, bon-bons and poker; a desire to be left alone, not too far from the out board rail, with a package of that wonderful panacea, lemon drops, of which as many as three tons will be consumed during a particularly stormy crossing. During a bit of heavy weather, one of the ship's wits, feigning much excitement, rushed into a group of forlorn sea-sick warriors, to inform them that "Here comes a torpedo—straight for us!" "Thank God," came the answering chorus.

Aside from the fifteen tons of various candies loaded in Hoboken, each trip witnesses the consumption of approximately two hundred thousand cigarettes, twenty thousand cigars, three thousand packages of Bull Durham and eleven thousand pieces of soap.

The Clothing and Small Stores issue to the crew about nine thousand dollars' worth of wearing apparel monthly. This active branch of the Sales Division carries a stock of supplies valued at fifty thousand dollars—from three cent spools of thread to twenty dollar overcoats. For the hard to fit and the Beau Brummel C. P. O.'s, the made-to-measure business is no small item.

The total annual business done by the Sales Division—sales to the crew and troops, including transfers of stores to other ships and stations in Europe, amounts to nearly half a million dollars. All items handled by the ship's stores are sold at cost, with but a very small margin of profit. In some instances the selling price is lower than the cost. It is endeavored to make not over ten per cent profit, the money thus

accumulated going to the entertainment fund, which provides the means of entertaining the crew and troops with movie shows each night, and various other activities and equipments which are necessary to keep the boys amused and happy. The Disbursing Division of the Supply organization is just what the name implies, and expends more real cash than a flock of youthful Pittsburgh millionaires. Besides paying the volumes of never-ending bills for never-ending supplies used on board, the pay roll of the ship's officers and men are kept by the yeomen, who comprise the personnel of this division. The Disbursing Officer peels off seventy thousand cold iron men each pay day, which happens twice a month. Pay day, the day the Eagle does his big stunt, to the sailors is "Der Tag." The annual wages paid to the ship's company approximates one million eight hundred thousand dollars.

The Storekeeping Section procure and carry in stock all the varied supplies used on board for the operation and maintenance of the ship. The store-rooms are veritable storehouses, stocked with every conceivable kind of supplies from deck swabs to grate bars.

One of the chief difficulties encountered during the early days was to find spare parts for the German electrical equipment. Our American standard equipment does not fit the German installations, and unless spares could be obtained the whole electrical system would have to be replaced with standard American fittings. Fortunately, there was quite a stock of German equipment remaining in England since the pre-war days. This had been carried in stock for the use of German ships calling at English ports. Practically all of this stock was purchased by the *Leviathan*, and was sufficient to run the ship until our own factories could be equipped to turn out this type of supplies and equipment. When the Army, Navy Yards and Shipping Board were clamoring for supplies, the task of procuring stock in quantities demanded by such a huge ship was indeed a difficult one. Thanks to the loyal co-operation of New York and New Jersey business men, and the Naval Commandeering Board, sufficient quantities of supplies were

secured to keep going. A typical example of the difficulties encountered can be illustrated by the activity necessary to equip the ship's hospital. The market was bare of such supplies, due to the incessant demands from our own and our Allies Army and Navy Medical Departments. Manufacturers of surgical supplies from all over the country were appealed to. Some had one kind of instrument, some another; from all of them finally evolved a complete and excellently equipped hospital, equalled by none afloat and surpassed by few ashore. This one purchase required nearly six weeks of effort and search to complete.

Some idea of the volume of supplies necessary to keep the good ship running may be gathered from the following:

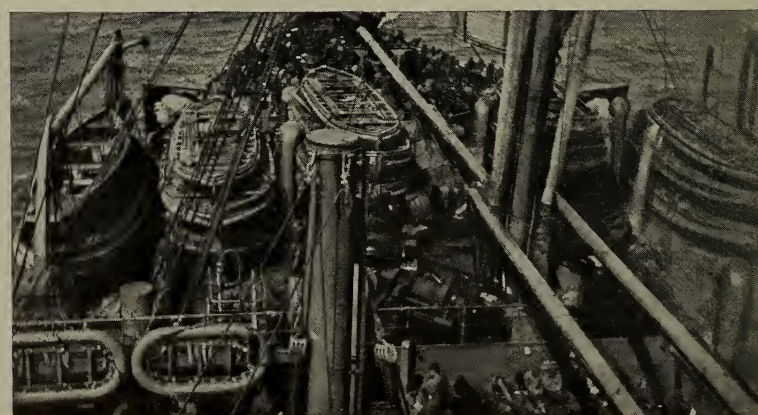
For washing the interior decks, etc., about six tons of soap, six tons of soap-powder, and two tons of lye are used each trip.

The canvas bunk-bottoms represent an \$85,000 purchase, while \$6,000 would be necessary to replace the bed sheets. Blankets for the staterooms and hospital represent an expenditure of \$30,000, while one of the many manila mooring lines, each 720 feet long, thirteen inches in circumference, and weighing 7,631 pounds, cost \$2,403.77. The four-inch anchor chain cost \$2,869.42 for each ninety foot length.

Part IV

Some Passengers Carried

Brig. Gen. Samuel T. Ansell.
 Prince Axel of Denmark.
 William A. Ashbrook, M.C.
 Chandler P. Anderson, War Industries Board.
 M. J. Abbott, Liquidation Commission.
 Daniel R. Anthony, M.C., Committee on Military Affairs.
 Major General George Barnett, U.S. M.C., Commanding Officer U.S.M.C.
 Mrs. George Barnett.
 Samuel Blythe, American Red Cross.
 Dr. Herman H. Biggs, American Red Cross.
 Dr. Edward R. Baldwin, American Red Cross.
 H. S. Brown, Liquidation Commission.
 Col. Robert Bacon, Ex-ambassador to France.
 Newton D. Baker, Secretary of War.
 Mr. John L. Bouchal, Vice Consul to Prague, Bohemia.
 Mrs. Marie Bouchal.
 Mr. W. Bolling, brother-in-law of President Wilson.
 John E. Baker, Congressman.
 Maj. Gen. A. Cronkheit.
 Irvin S. Cobb, Journalist.
 T. A. Chandler, M.C.
 Frank I. Cobb, Journalist.
 Walter M. Chandler, M.C.
 Tom Connally, M.C.
 Frank K. Cameron, Representative of the Department of the Interior.
 Sam J. Cook, Liquidation Committee.
 Chas. P. Caldwell, M.C., Committee on Military Affairs.
 Maj. Gen. Joseph P. Dickman.
 Henry P. Davison, Head of American Red Cross.
 C. H. Dillon, M.C.
 Livingston Davis, Asst. to Mr. Roosevelt.
 Col. The Hon. Lord Decies, British Army.
 Josephus Daniels, Secretary of the Navy.
 Mrs. Josephus Daniels.
 Paul K. Dayton, Liquidation Commission.
 S. H. Dent, M.C., Committee on Military Affairs.
 G. A. Ellston, M.C.
 Martin Egan, Journalist.
 Rear Admiral Earle, Chief of the Bureau of Ordnance.
 Major General Chas. S. Farnsworth.
 William Fleischman, United States Shipping Board.
 Commander Foote, Aide to Secretary Daniels.
 Mrs. Sample B. Forbus and child, wife American Consul, Brest, France.
 Wm. J. Fields, M.C., Committee on Military Affairs.
 Alvan T. Fuller, M.C., Committee on Military Affairs.
 Benj. L. Fairchild, M.C.
 Hon. Albert M. Franklin, Italian Minister to Mexico.
 Lady Mabel Emily Grant, wife of Vice-Admiral Grant, R.N.
 Brig. Gen. Walter H. Gordon.
 Admiral Griffin, U.S.N., Chief of the Bureau of Steam Engineering.
 William R. Green, M.C.
 Jas. P. Glynn, M.C.
 Hoyt S. Gale, Representative of the Department of the Interior.
 Martin Green, Journalist.
 Capt. Walter H. Gerhardt, U.S.N.
 Frank L. Green, M.C., Committee on Military Affairs.
 Thos. S. Grago, M.C., Committee on Military Affairs.
 Brig. Gen. John N. Hodges.
 Fred. C. Hicks, M.C.
 Brig. Gen. Frank B. Hines.
 Preston Herbert, Chief of Tobacco Section, Subsistence Division, also Vice-President American Tobacco Co.
 E. N. Hurley, Chairman United States Shipping Board.
 Mrs. E. N. Hurley.
 W. W. Hastings, M.C.
 Dr. Samuel M. Hamill.
 Dr. L. Emmet Holt



RETURNING DOUGHBOYS

Some Passengers Carried—Continued

- Senator Henry F. Hollis.
 Harry E. Hull, M.C., Committee on Military Affairs.
 Thos. W. Harrison, M.C., Committee on Military Affairs.
 William Jenkins, American Ambassador to Odessa, Russia.
 Rabbi Samuel J. Jack, Jewish Welfare Board.
 Senator Homer H. Johnson.
 Fred. P. Kepple, Third Asst. Sec. of War.
 Charles C. Kearns, M.C., Committee on Military Affairs.
 Mr. Marshall Langhorne, First Secretary of the Legation at The Hague.
 Mrs. Marshall Langhorne.
 Major Harry Leonard, U.S.M.C., of Boxer Campaign fame.
 Senator James Hamilton Lewis.
 Jean L. Lafoert, U.S., Vice Consul at Algiers.
 Maj. Gen. LeRoy S. Lyon, U.S.A.
 C. T. Lewis, Secretary to American Ministry to Belgium.
 Miss Julia Lathrop, Children's Bureau, Department of Labor.
 Ladislav Lazaro, M.C.
 Fiorello H. LaGuardia, M.C., Committee on Military Affairs.
 Brig. Gen. L. L. McCauley, U.S.M.C.
 Brig. Gen. Samuel McRoberts, U.S.A.
 Brig. Gen. G. H. McManus.
 Joseph F. Marius, United States Shipping Board.
 Guy H. Moon, United States Shipping Board.
 Brig. Gen. John F. Madden.
 Mr. S. S. McClure, of McClure's Magazine.
 Mr. May, Personal Secretary to Mr. Daniels.
 John W. Morin, M.C., Committee on Military Affairs.
 John F. Miller, M.C., Committee on Military Affairs.
 Earl C. Michener, M.C.
 Hon. Henry Morgenthau, ex-Ambassador to Turkey.
 Our French pilot, Jean Metayer, Major de la Flotte.
 Major Gen. O'Ryan.
 Mr. and Mrs. George Patullo, Journalists.
 Mr. Chas. P. Pressley, Vice Consul General at Paris.
 Mrs. Chas. P. Pressley.
 Miss Marguerite Pressley.
 William J. Pike, American Consul to St. Gall, Switzerland.
 Edward E. Phalen, United States Shipping Board.
 Brig. Gen. Thomas H. Rees.
 Franklin D. Roosevelt, Asst. Sec. of the Navy.
 John Randolph, Vice Consul to Odessa, Russia.
 Major General Harry W. Rogers, Quartermaster General.
 C. W. Ramseyer, M.C.
 David Runyon, Journalist.
 Brig. Gen. W. C. Rivers.
 Mrs. Joan F. L. Morgan Singer, wife of Rear Admiral Singer, R.N.
 Miss Joan F. L. Singer, daughter of Rear Admiral Singer, R.N.
 Master Michael Morgan Singer, son of Rear Admiral Singer, R.N.
 Thos. D. Schall, M.C.
 Mrs. Thos. D. Schall.
 William G. Sharpe, Ambassador to France.
 William G. Sharpe, Jr.
 Felix W. Smith, American Consul to Tiflis, Russia.
 Addison Southard, American Consul to Aden, Arabia.
 Mrs. Addison Southard.
 Inman Sealby, United States Shipping Board.
 Hatton W. Summers, M.C.
 Addison Smith, M.C.
 John N. Tillman, M.C.
 G. B. Thomason, M.C.
 Brig. Gen. Harry Taylor.
 Lieutenant General Emile Adolphe Taufflieb, French Army.
 Madame Taufflieb.
 Maj. Gen. Peter E. Traub.
 Rear Admiral Taylor, U.S.N., Chief of the Bureau of Construction and Repair.
 Dr. Fritz B. Talbot.
 Maj. Teiusanu, Roumanian Attaché at Washington, D. C.
 Mrs. Teiusanu.
 John Z. Tilson.
 Brig. Gen. Edward Vollrath.

Some Passengers Carried—Continued

Carl Vrooman, Asst. Sec. of Agriculture.	C. P. Pressley, Mrs., wife of Vice-Consul.
Lieutenant Commander N. Wilkinson, R.N.R., Camouflage expert.	Warren Pershing, son of General Pershing.
Mrs. N. Wilkinson.	W. G. Sharp and family, returning Ambassador to France.
Brig. Gen. C. B. Wheeler.	Brig. Gen. MacArthur, Commanding 84th Div.
J. Harry Welling, United States Shipping Board.	Major General McAndrews, Chief of Staff, A.E.F.
Jas. C. Wilson, M.C.	Major General Shanks, Port of Embarkation, Hoboken, U.S.A.
Dr. William H. Welch.	Sir and Lady A. Newsholme, K. C. B.
Hon. Hugh C. Wallace, American Ambassador to France.	W. H. George, Vice-Consul.
Mrs. Wallace.	F. Hitchcock, ex-Postmaster General.
George Wadsworth, Vice Consul, Nantes, France.	George V. L. Meyer, Mrs., wife of ex-Secretary of the Navy.
George M. Young, M.C.	O. C. Crosby, Mrs., wife of ex-Secretary of the Treasury.
Brig. Gen. Chas. X. Zimmerman.	B. L. French, Member of Congress.
F. D. Scott, Member of Congress.	W. R. Greene, Member of Congress.
C. C. Michener, Member of Congress.	C. D. Radford, Brig. Gen., U.S.M.C.
C. P. Caldwell, Member of Congress.	R. Crane, U. S. Minister to Czechoslovak.
J. W. Morin, Member of Congress.	A. Gleaves, Vice-Admiral, Commander Cruiser and Transport Force.
B. L. Fairchild.	J. Haygood, Brig. Gen.
S. King, Member of Congress.	F. H. Schofield, U.S.N.
H. E. Hull, Member of Congress.	H. P. Davidson, head of A. R. C.
F. L. Greene, Member of Congress.	R. Olney, Member of Congress.
W. J. Snow, Maj. Gen., Chief of Field Artillery.	J. M. Morin, Member of Congress.
J. L. Bouchal, Vice-Consul to Prague.	C. P. Caldwell, Member of Congress.
J. L. Bouchal, Mrs., wife of Vice-Consul.	
N. D. Baker, Secretary of War.	
C. P. Pressley, Vice-Consul to Paris.	

Roster of Officers (Alphabetically)

Alexander, Edward J., Lieut. (P. C.), U.S.N.
 Alexander, Albert E., Lieut. (j. g.), U.S.N.R.F.
 Allen, William S., Ensign, U.S.N.R.F.
 Althiser, Edwin, Lieut. (j. g.), U.S.N.R.F.
 Amberg, Edward J., Ensign (P. C.), U.S.N.R.F.
 Andrews, Ellwood W., Lieut., U.S.N.
 Armiger, William J., Ensign, U.S.N.R.F.
 Arnold, Leslie J., Ensign, U.S.N.
 Asserson, Frederick A., Commander, U.S.N.
 Ast, Raymond J., Ensign, U.S.N.R.F.

Baker, James M., Jr., Lieut. (j. g.) (P. C.), U.S.N.R.F.
 Banks, Earl F., Carpenter, U.S.N.R.F.
 Barber, William A., Jr., Ensign (P. C.), U.S.N.R.F.
 Barcus, James S., Ensign, U.S.N.R.F.
 Barker, Edwin F., Lieut., U.S.N.
 Bateman, Arnold H., Lieut. (j. g.), U.S.N.
 Beardsley, Ralph A., Ensign, U.S.N.
 Beebe, John L., Lieut., U.S.N.R.F.
 Bense, Frederick, Lieut. (j. g.), U.S.N.
 Benton, William M., Lieut. (M. C.), U.S.N.
 Bergman, Milton, Gunner, U.S.N.
 Billingsley, Joe K., Ensign (P. C.), U.S.N.R.F.
 Bishop, Stuart A., Lieut. (j. g.), U.S.N.R.F.
 Blackburn, John H., Commander, U.S.N.
 Boucher, Creed H., Lieut., U.S.N.
 Braff, Max M., Lieut. (M. C.), U.S.N.
 Braunwarth, Albert, Boatswain, U.S.N.R.F.
 Bright, Roscoe C., Lieut. (j. g.), U.S.N.
 Britt, Benjamin B., Carpenter, U.S.N.
 Brockie, William J., Machinist, U.S.N.
 Bruns, Harry, Gunner, U.S.N.
 Bryan, Henry F., Captain, U.S.N.
 Burtis, William H., Lieut., U.S.N.

Cadmus, Charles E., Ensign, U.S.N.R.F.
 Campbell, Carl I., Chief Pharmacist, U.S.N.R.F.
 Carlon, Charles B., Ensign, U.S.N.
 Carroll, Frank J., Lieut. (M. C.), U.S.N.
 Carter, William J., Lieut. (j. g.), U.S.N.
 Coghlan, Daniel, Boatswain, U.S.N.R.F.
 Cole, Raymond, Gunner, U.S.N.
 Coulbourn, Theodore S., Lieut. (j. g.) (P. C.), U.S.N.

Roster of Officers (Alphabetically)—Continued

Cox, Christopher C., Ensign, U.S.N.
 Croasdale, Ernest S., Ensign, U.S.N.
 Crofutt, Edward F., Lieut. (M. C.), U.S.N.R.F.
 Cummins, David E., Lieut. (j. g.), U.S.N.
 Cunningham, Harold A., Lieut. Comdr., U.S.N.R.F.

Davidson, Harold, Lieut., U.S.N.R.F.
 Deacon, Joseph Gurney, Ensign, U.S.N.R.F.
 Denison, Ross E., Ensign, U.S.N.
 Ditmars, John R., Jr., Ensign, U.S.N.R.F.
 Dorsey, Arthur B., Lieut., U.S.N.
 Dundon, William A., Mach., U.S.N.R.F.
 Dunlap, Albert K., Lieut. (M. C.), U.S.N.
 Durell, Edward H., Captain, U.S.N.

Edwards, Eaton C., Lieut. Comdr. (P. C.), U.S.N.
 Edwards, Henry I., Lieut., U.S.N.
 Erickson, Edward B., Lieut. (P. C.), U.S.N.
 Estey, Edward, Lieut. (j. g.), U.S.N.
 Evans, John C., Ensign, U.S.N.R.F.
 Ewbank, Henry L., Ensign, U.S.N.

Fagan, George, Ensign, U.S.N.R.F.
 Fagan, John J., Mach., U.S.N.
 Fales, De Coursey, Ensign, U.S.N.R.F.
 Farwell, Neal B., Lieut. Comdr. (P. C.), U.S.N.
 Fenstermaker, Marvin C., Ensign (P. C.), U.S.N.R.F.
 Ferguson, John, Ensign, U.S.N.R.F.
 Ferry, John M., Jr., Ensign, U.S.N.
 Fisk, Harvey E., Ensign (P. C.), U.S.N.R.F.
 Fitzsimmons, George R., Ensign, U.S.N.
 Ford, James W., Lieut. Comdr., U.S.N.R.F.
 Foss, Albion F., Lieut. (j. g.), U.S.N.R.F.
 Foster, John, Lieut. Comdr., U.S.N.R.F.
 Foster, Leroy B., Lieut. (j. g.), U.S.N.R.F.
 Froehlich, Sylvan L., Ensign, U.S.N.R.F.
 Fry, Alfred B., Captain, U.S.N.

Gahagan, Allen J., Ensign, Lieut. (j. g.), U.S.N.R.F.
 Gay, Nelson, Ensign, U.S.N.R.F.
 Gaynor, Thomas A., Ensign, U.S.N.R.F.
 Glaser, Alfred W., Mach., U.S.N.R.F.

Roster of Officers (Alphabetically)—Continued

Graeff, Warren L., Ensign, U.S.N.
 Grant, Deloss A., Lieut. (j. g.), U.S.N.R.F.
 Gunnell, Vaughn J., Lieut. (P. C.), U.S.N.

Hackett, Paul B., Ensign, U.S.N.
 Hagerman, Oliver S., Mach., U.S.N.R.F.
 Haines, Rowland B., Ensign, U.S.N.
 Halsey, William H., Lieut. Comdr. (M. C.), U.S.N.
 Hammond, Carlton M., Ensign, U.S.N.
 Hankinson, Otto L., Lieut., U.S.N.R.F.
 Hannon, Frank, Mach., U.S.N.
 Harding, Arthur E., Lieut. (j. g.), U.S.N.
 Harper, Fred K., Lieut. (j. g.), U.S.N.R.F.
 Harris, Lester L., Ensign (P. C.), U.S.N.R.F.
 Heinz, Earnest D., Elec. Gunner, U.S.N.
 Hamby, Cleveland, Lieut., U.S.N.
 Hilliard, Charles C., Lieut. (j. g.), U.S.N.R.F.
 Hoffman, Leonard G., Lieut. (P. C.), U.S.N.
 Howe, Paul B., Ensign, U.S.N.
 Howell, Harry M., Lieut. (M. C.), U.S.N.
 Hudgins, Earle P., Carpenter, U.S.N.
 Hudson, Erastus M., Lieut. (M. C.), U.S.N.
 Hulbert, Harold S., Lieut. (M. C.), U.S.N.R.F.

Ingram, Herbert R., Ensign (P. C.), U.S.N.R.F.

Jack, John H., Lieut., U.S.N.
 Jeffers, William N., Comdr., U.S.N.
 Jensen, Joseph, Mach., U.S.N.R.F.
 Johnston, George O., Ensign, U.S.N.R.F.
 Johnston, William, Boatswain, U.S.N.
 Jones, Edward E., Lieut., U.S.N.R.F.
 Jones, John, Lieut. Comdr., U.S.N.R.F.
 Jones, Richard H., Lieut., U.S.N.
 Judkins, Holland B., Lieut. (j. g.) (P. C.), U.S.N.R.F.

Katzmarek, John E., Ensign, U.S.N.R.F.
 Keating, Thomas E., Lieut., U.S.N.R.F.
 Keeser, George, Lieut., U.S.N.
 Kennedy, Patrick F., Lieut. (D. C.), U.S.N.
 Kirk, Colin, Lieut., U.S.N.R.F.

Roster of Officers (Alphabetically)—Continued

Knight, Rufis H., Ensign, U.S.N.R.F.
Krez, Conrad A., Lieut., U.S.N.

Lau, Walter, Lieut., U.S.N.
Le Clerq, Frederick D. K., Ensign, U.S.N.R.F.
Leiper, John A., Ensign, U.S.N.R.F.
Leonard, Arthur T., Lieut., U.S.N.
Lequin, Maurice L., Ensign, U.S.N.R.F.
Leventhal, Lewis F., Ensign, U.S.N.
Looney, William C., Lieut. (j. g.), U.S.N.R.F.
Lorentz, Robert, Jr., Lieut. (M. C.), U.S.N.
Lovell, Douglas G., Lieut., U.S.N.
Luskin, Abraham, Pay Clerk, U.S.N.R.F.

Malloy, William E., Lieut., U.S.N.
Mann, Harry A., Ensign, U.S.N.R.F.
Manock, Frank D., Lieut. Comdr., U.S.N.
Martin, Robert, Pharmacist, U.S.N.
Maune, James J., Carpenter, U.S.N.
May, Henry A., Comdr., U.S.N.
Meagher, James F., Ensign, U.S.N.R.F.
McDonald, Eugene E., Captain (C. C.), U.S.N.
McLeod, Daniel, Carpenter, U.S.N.
Metayer, Jean, French Pilot.
Milan, Daniel F., Ensign, U.S.N.R.F.
Millard-Turner, R., Lieut. (j. g.), U.S.N.R.F.
Miller, Charles H., Ensign, U.S.N.R.F.
Miller, L. Dee, Lieut., U.S.N.R.F.
Minuse, Alfred W., Lieut. (j. g.), U.S.N.R.F.
Morrill, Stanley, Lieut. (j. g.), U.S.N.R.F.

Nichols, Spencer V., Ensign, U.S.N.R.F.
Nordstrom, Isador, Lieut. (j. g.), U.S.N.
Nuber, Horace D., Lieut. (P. C.), U.S.N.

O'Donnell, Joseph A., Elec. Gunner, U.S.N.R.F.
Ohmer, August, Carpenter, U.S.N.
Oman, Joseph W., Captain, U.S.N.
Osborn, Charles K., Lieut. Comdr., U.S.N.
O'Shaughnessy, Louis B., Ensign (P. C.), U.S.N.R.F.

Palen, Milburn R., Ensign, U.S.N.R.F.
Parker, John C., Lieut., U.S.N.

Roster of Officers (Alphabetically)—Continued

Phelps, William W., Captain, U.S.N.
 Poggi, Godfrey F., Pay Clerk, U.S.N.R.F.
 Porter, John E., Lieut. (M. C.), U.S.N.

Rapkin, Alfred C., Ensign, U.S.N.R.F.
 Rathbun, Walter L., Lieut. (M. C.), U.S.N.R.F.
 Rector, Frank L., Boatswain, U.S.N.
 Redman, Foster B., Pharmacist, U.S.N.
 Reimann, Carl, Gunner, U.S.N.
 Roberts, Jack B., Jr., Ensign, U.S.N.R.F.
 Rowedder, Herbert B., Ensign, U.S.N.

Schad, Theodore S., Ensign (P. C.), U.S.N.R.F.
 Schafer, George C., Lieut. Comdr., U.S.N.
 Schildhauer, Clarence H., Ensign, U.S.N.
 Schluter, Wilhelm H. F., Lieut., U.S.N.
 Schoeffel, M. F., Ensign, U.S.N.
 Seaman, Elbert C., Ensign, U.S.N.R.F.
 Shannon, Charles R., Elec. Gunner, U.S.N.R.F.
 Sheppard, Thomas T., Lieut. (j. g.), U.S.N.R.F.
 Sherlock, Archibald J., Ensign, U.S.N.R.F.
 Shuler, John W., Ensign (P. C.), U.S.N.R.F.
 Simonpietri, William L. F., Lieut. Comdr. (P. C.), U.S.N.
 Singleton, Louis P., Ensign, U.S.N.R.F.
 Skead, Robert G., Lieut., U.S.N.R.F.
 Smith, Charles W., Boatswain, U.S.N.R.F.
 Smith, Walter E., Pay Clerk, U.S.N.R.F.
 Snyder, John J., Comdr. (M. C.), U.S.N.
 Soars, Charles A., Lieut. (P. C.), U.S.N.
 Stafford, Archibald S., Ensign (P. C.), U.S.N.R.F.
 Staton, Adolphus, Comdr., U.S.N.
 Stephans, Frederick J., Ensign (P. C.), U.S.N.R.F.
 Strauss, Spencer G., Lieut. (M. C.), U.S.N.R.F.
 Swift, John T., Lieut., U.S.N.

Tawes, George V., Lieut. (j. g.), U.S.N.R.F.
 Thomas, Wilmer J., Ensign (P. C.), U.S.N.R.F.
 Thompson, Edward H., Ensign, U.S.N.R.F.

Vars, Addison F., Ensign, U.S.N.R.F.
 Vaughn, George T., Lieut. Comdr. (M. C.), U.S.N.

Roster of Officers (Alphabetically)—Continued

Wainwright, Stuyvesant, Lieut. (j. g.), U.S.N.R.F.
 Waters, Clifford W., Ensign (P. C.), U.S.N.
 Waterston, Fred C., Boatswain, U.S.N.
 Watson, James P., Lieut., U.S.N.R.F.
 Watt, Frank S., Lieut., U.S.N.R.F.
 Weston, Albert T., Lieut. (M. C.), U.S.N.R.F.
 Whitney, Rintoul T., Lieut. (j. g.), U.S.N.R.F.
 Willey, James H., Lieut., U.S.N.R.F.
 Williams, James F., Gunner, U.S.N.
 Wilson, Arthur L., Mach., U.S.N.R.F.
 Wilson, Tom C., Mach., U.S.N.
 Woodward, Vaughn V., Comdr., U.S.N.
 Wrigley, Edmund J., Ensign (P. C.), U.S.N.R.F.
 Wright, F. G., Lieut., U.S.N.R.F.
 Wyatt, Thomas H., Lieut. (j. g.), U.S.N.R.F.

Ziesel, Carl Stanley, Lieut. (j. g.), U.S.N.

Nurses

Ch. Nurse, Mary M. Robinson, U.S.N.
 Res. Nurse, Irene Reid, U.S.N.
 Nurse, Mary A. O'Neill, U.S.N.
 Nurse, Ruby E. Nutting, U.S.N.R.F.
 Nurse, Madelon Stowell, U.S.N.R.F.
 Nurse, Alice B. Newcomb, U.S.N.R.F.
 Nurse, Ruby Russell, U.S.N.R.F.

A. L. A., Edward H. Virgin
 Y. M. C. A., Maurice S. Safford
 K. of C., Francis C. O'Neill; Thomas Walsh;
 Howard Reilly
 A. R. C., Sherburn M. Becker
 J. W. B., Leo C. Baum; Walter Hymes

Roster of Crew

Abraham, Leslit	Auger, Leroy B.	Bednar, Stephen G.
Abrahams, James J.	Augustine, Lionel J.	Beebe, Herbert R.
Abrams, Leonard M.	Auth, Fred	Beetham, Harry R.
Abeln, Herman T.	Avery, Ira	Beighley, Earl Glen
Abriel, George D.	Axford, Joseph D.	Bellerson, Geo. Frederick
Adams, James A.	Axman, William	Benfer, Albert G.
Adams, Samuel N.	Ayers, Aaron, D.	Benford, William F.
Adamson, Joseph		Bennett, Arthur August
Adang, Frank J.	Ballew, Roy A.	Bennett, Peter
Adcock, John R.	Bass, Melville R.	Bentley, Albert
Agustin, Alfredo	Bachmeier, Charles	Benton, Eugene D.
Aitken, Robert	Bagley, Gawn A.	Berard, Raymond J.
Albert, Edward Gus	Bagley, Geo. M.	Bercume, Andrew L.
Alcol, Animo	Bahnsen, Henry A.	Bergner, Chas. A. William
Aldridge, William F.	Bailess, Benson Lyle	Berger, Geo. I.
Alexander, Claude M.	Bailey, John J. R.	Berger, William J.
Alexander, Joseph H.	Baker, James	Berner, John
Alexander, Henry S.	Bakken, Elby Severnine	Bernstein, Harry M.
Alexy, Louis Albert	Baldwin, Sidney	Berrie, Geo. E.
Allen, Alfred C.	Bales, William Emit	Berry, Fred E.
Allen, Charles C.	Balkhaus, Reinhart F.	Berry, Stewart S.
Allen, Cragon Batson	Ballein, Orville E.	Bert, Edward J.
Allen, Oliver Geo.	Baltimore, Roland C.	Bertenshaw, Earl
Allen, Warren Reynolds	Bannerman, Frank M.	Best, Harry E.
Almond, Lloyd J.	Bannon, James Stephen	Betlej, Michael A.
Alt, Theodore	Bannon, Robert	Betterton, William T.
Amato, Sam	Barber, Carl B.	Betzold, Victor L.
Ambos, Ferdinand William	Barhite, Raymond R.	Bianchi, Victor J.
Ambraz, Joseph	Barker, Albert T.	Bianculli, Pasquale
Andersen, Harold M.	Barkowik, Harry	Biehn, Byron B.
Anderson, Arthur Lyman	Barlow, Raymond H.	Bigelow, James A.
Anderson, Charles G.	Barnard, Warren H.	Bilby, Austin Charles
Anderson, Harry E.	Barnes, John	Biles, Otis O.
Anderson, Herman R.	Barnes, Samuel Clark	Bishop, Irwin Leslie
Anderson, Horace Woods	Barney, John L.	Bishop, Luther E.
Anderson, Joel A.	Barr, Joseph F.	Bissell, Warren S.
Anderson, Marius H.	Barrett, Thomas E.	Bittlingmaier, Henry
Anderson, Sigurd Melvin	Barroza, Domingos G.	Blackburn, Roy James
Andres, Walter S.	Barry, Hugh Patrick	Blackstock, Samuel H.
Andrews, Robert W.	Barry, Joseph O.	Blake, Claude N.
Applin, Raymond Nelson	Bartholomew, Nicholas	Blanchard, Joseph L.
Archer, John J.	Bartlett, Dudley C.	Blevins, Don Clifford
Ardelt, Herman A.	Baskin, Ernest Gamble	Blumfield, Morris
Armstrong, Geo. Custer	Bates, Harry W.	Boak, Deo
Armstrong, John	Bauer, Joseph	Boehmer, William F.
Armstrong, Thomas J.	Baur, Otto Benjamin	Boettcher, Paul W.
Arneson, Fred A., Jr.	Bays, Earl R.	Boguilon, Pedro T.
Arnold, Louis	Beard, Paul D.	Bohan, Thomas
Artz, Earl I.	Bean, Otis Eugene	Boles, Charles E.
Ashley, Robert H.	Beatty, Geo. Edw.	Bonner, Charles A.
Astromolsky, Abraham	Beavers, Geo. William	Bonner, Milford C.
Atherton, William McN.	Becker, Geo. J.	Bonnin, Celestin
Atkins, Thomas P.	Becker, Jacob	Bolton, Robert John
Atsma, Lambert W.	Becker, Leslie L. C.	Bomstad, Mahlon Mayo

Roster of Crew—Continued

Booker, Herbert M.	Brown, Hugh W.	Brown, Walter
Borden, Albert R.	Brown, Ira Oscar	Cabrera, Rafael H.
Borders, Lyndon C.	Brown, Isidore	Cagnon, Joseph A.
Borrello, Louis R.	Brown, Jefferson C.	Cain, John A.
Bort, Harold D.	Brown, Jesse A.	Caliao, Alfredo
Boss, Geo. D.	Brown, Lee E.	Callahan, Joseph H.
Boswell, Martin Hugh	Brown, Pat	Callahan, William H.
Boswell, Russell P.	Brown, Reuben William	Calloway, James C.
Botke, John James	Brown, Thomas Lanier	Calloway, James C.
Bowens, Fred	Brown, Vernie Aldwin	Camacho, Lope
Bowers, Horace A.	Brown, Wille	Cameron, Walter G.
Bowles, Clarence H.	Brownell, Herbert Leslie	Campbell, Franklin G.
Bowles, Thomas V.	Broyderick, Francis H.	Canfield, William J.
Bowling, Leo Leslie	Bruch, Edward P.	Cannistraci, Salvstore
Boyce, Lafayette	Brunce, Peter J.	Cantwell, Charles E.
Boylan, Sidney E.	Brusa, John W.	Caprile, Louis
Boyle, Harry J.	Bucher, Luther Allan	Caradonna, Gaspare
Bradford, Frederick G.	Buck, David Vincent	Carey, Alexander J.
Bradley, James J.	Buckley, John P.	Carey, Everett
Bradley, Philip R.	Buckley, Thomas E.	Cargile, Louis L.
Brakstone, Israel	Buckner, Clifton	Carley, Mathew J.
Branch, Jackson A.	Buckowski, Felix	Carley, William E.
Braswell, William C.	Budge, Russell E.	Carls, Walter
Bray, Walter J.	Bulat, Marco, Jr.	Carlson, Carl Stanley
Breitman, Mitchell C.	Bull, Curtis O.	Carlson, Herbert S. E.
Brellis, Stanley J.	Bull, Frank Wadsworth	Carmichael, Joe H.
Brennan, Frank J.	Bullington, Preston G.	Carmichael, Wilbert D.
Brennan, Martin.	Burgermaster, William L.	Carolan, Peter X.
Bresnahan, Cornelius R.	Burgum, Arthur C.	Caron, Theodore Fred
Brett, James V.	Burke, Elmer	Carpenter, Herbert P.
Brewer, Elmer A.	Burke, Fredrick H.	Carpenter, Leonard F.
Bridgman, Geo. W.	Burke, James E.	Carpenter, William G.
Brierley, Clifton	Burkey, Elmer A.	Carnes, John Thomas
Brierley, Vernon H.	Burnes, James Edwin	Carr, Henry W. R.
Brindle, James J.	Burnett, John A.	Carroll, Joseph Francis
Brinton, Harold	Burns, James Eddie	Carroll, Joseph Walter
Broadbent, Floyd W.	Burns, Robert J.	Carrow, Lyle
Brock, John J.	Burnside, Archibald J.	Carter, Geo. W.
Broderick, James W.	Buron, Romeo H.	Carter, James Carleton
Brooker, John H.	Burris, Lester Leo	Carter, William
Brooks, Jimmie Lee	Burriss, John H.	Cartier, Arthur L.
Brooks, Lawrence D.	Burroughs, Edgar S.	Carver, Warren W.
Brophy, Robert J.	Burton, Lavar Miller	Caryl, Charles F.
Broring, Benjamin Joseph	Buriell, Virgil E.	Casey, Charles Victor
Broughton, William I.	Butler, Thomas Jr.	Casey, Michael
Brouillette, Alaide T.	Butterfield, John R.	Casey, Peter Henry
Brouillette, Jules G.	Buttles, Marion Arthur	Cashman, Robert J.
Brown, Charles	Butts, Geo. W.	Casper, David Joseph
Brown, Edely H.	Byrne, John J.	Catanzano, Guisepppe
Brown, Egbert Lee	Byrne, Robert T.	Cathcart, Joseph
Brown, Geo. Eben, Jr.	Byrnes, Walter J.	Cator, Robert W.
Brown, Geo. Taylor	Byron, Cyril A.	Cecil, Lawrence Walter
Brown, Henry James	Baumgarden, Willis A.	Chalstrom, Oliver Floyd
Brown, Harold S.	Behman, August Scott	Chapman, Abram

Roster of Crew—Continued

Chapman, Geo. McKinley	Combs, Cullen I.	Cummings, Forrest L.
Chapman, Ernest Donald	Conerty, Raymond P.	Cummings, Haydn
Charles, Joseph	Conger, Elmo Raymond	Cuneo, Antonio Newton
Chase, Charles C.	Conjurski, Paul	Cunningham, John Porter
Chew, Sidney W.	Conlon, Michael J.	Curry, Paul Jones
Chichester, William P.	Connolly, Patrick J.	Curry, Thomas Joseph
Chisholm, John A.	Connolly, Terence	Curtis, Edwin
Chlebek, William J.	Connor, Benjamin	Curtis, Harvard Geo.
Christ, Archie J.	Conrad, Edward	Cussuca, James
Christiansen, Elmer	Conrad, Robert H.	Custard, Herman L.
Christmas, Robert	Conway, Eugene V.	
Christiansen, Wollert M.	Cook, Robert W.	Dahlin, Ernest M.
Church, Charles R.	Coonce, Claud Ray	Dailey, Bernard J.
Chute, Gordon	Cooper, Ottis C.	Dalstra, Andrew
Ciocchetti, Guiseppe	Cooper, Richard F.	Daltuvas, John J.
Clancy, Thomas J., Jr.	Cope, Titus W.	Daly, Thomas L.
Clark, John F.	Copeland, Clarence F.	Dalzell, Lloyd Hunter
Clark, John H.	Coroy, John Peter	Damaskey, Walter
Clark, Miner C.	Corkbill, George B.	Dandrade, Conrad
Clark, Thomas H. W.	Costello, Joseph	Danielsen, C. W.
Clarke, Edward W.	Cowan, Lucio	D'Arcangelo, Michael
Clause, John N.	Corman, Kenneth J.	Darch, William J.
Clelland, Paul S.	Cornell, August E.	Davey, Raymond
Clements, Henry Geo.	Cory, Halsey D.	David, Bryan I.
Clifford, Roy F.	Cosper, Raymond W.	Davis, Clyde
Clift, Corbett E.	Costello, Herbert	Davis, Dewey Lee
Cline, Joseph B.	Cotman, John Daniel	Davis, Edward Lorenzo
Clottstein, Louis	Covert, Randolph W.	Davis, Francis Joseph
Clough, Edwin O.	Cowdrey, Fred Leslie	Davis, John Joseph
Clough, Stevan W.	Cowper, Charles L.	Davis, James D.
Clougherty, John	Craddock, Ralph	Davison, Lee Roy
Clow, William Q.	Craig, Ambrose J.	Dawson, Benjamin A.
Coates, Charles McK.	Craig, Thomas Joseph	Dawson, Ernest Leroy
Coblentz, Harry M.	Craine, Hubert Walter	Dean, Chester B.
Cochrane, David A.	Crane, Lyman Elwood	Dearbanne, Willis
Cochran, Ralph P.	Crapps, Cecil	Dearborn, Geo. E.
Cockrum, William Orlando	Crawford, Charles I.	Dearth, Thomas H.
Codyer, Fred J.	Crawford, Robert A. L.	Debrine, James J.
Coen, Vincent Boardman	Craycraft, George H.	Deford, Seth A.
Coffey, Jesse E.	Creelman, John Newton	Delgado, Frank A.
Cogan, Daniel J.	Crockett, John Edward	Delgreco, John
Cogswell, George A.	Croese, Claude W.	Dellaporta, Luderico
Cole, Albert C.	Cross, Raymond J.	DeLeon, Gregoria
Cole, William J.	Crotty, Thomas Edward	DeLong, Harry Peter
Cole, Austin Tilgham	Croushorn, George	DeLong, Ronald Morgan
Cole, Charles Burril	Crow, Walter V., Jr.	Demarah, Richard A.
Cole, Francis E.	Crowley, Timothy J.	Dempster, James
Coles, Robert L.	Crozer, Peter W.	Demetrium, Peter
Collins, Allan B.	Crum, Solomon	Dennis, Dewey J.
Collins, John Henry	Crumley, Raymond A.	Derouet, Camille
Collins, John J.	Crumm, Verne Ernest	Derring, Henry Franklin
Collup, Floyd Ingham	Crummy, Andrew Bernard	Derstine, John B.
Colvin, Howard H.	Cubile, Saturnino	Deschamps, Eugene
Colvin, Elmer Irvin	Culligan, Walter James	Desity, Joseph

Roster of Crew—Continued

DesJardin, Geo. A. N.	Doyle, William F.	Erlenbach, Martin A.
Desjardins, Philip	Drainville, Emile	Euler, Frederick William
Deslandes, Henri	Drew, Arthur Weston	Euler, Henry
Desmond, James F.	Dube, Charles Henry	Everhart, Frank L.
Desplechin, Charles M.	Duckworth, John Y.	Exerjian, Gabriel M.
Devanney, Albert R.	Dudley, John A.	Exner, Edward Frederic
Devers, Daniel F.	Duffey, John J.	
Devine, William F.	Duffy, James J.	Fabrizio, Ralph
DeWall Malefyt, Anthony	Dufresne, Henry J.	Farber, Joseph Geo.
Dewdney, Harry	Dugale, Daniel	Farquar, Alan Benton
Dibrill, Joe Glass	Duggan, Alston Hardy	Farley, Louie L.
Di Camillo, Baldwin D.	Duggan, Norman H.	Farrar, Geo. Washington
Dietrich, William Harvey	Dummett, Francis F.	Farrell, Peter
Digons, Walter James	Dumpprope, William B.	Fastenberg, Irving
Di Lella, Antonio	Dunaway, Arley Otto	Faughnan, Charles J.
Dileo, Vito	Dundon, John	Faulkner, Harry
Dillard, Clyde Rugus	Dunham, George I.	Fawcett, Lyman W.
Dillman, John Joseph	Dunn, Harrison	Feeny, James F.
Dillon, Thomas P.	Dunn, David O. S.	Feinster, James Dugan
Dimling, Henry	Dunn, Edwin C.	Feinstein, Charles
Di Pietro, Bartolo	Dunn, William D.	Felder, Clarence
Divan, Mathew E.	Dupre, John R.	Felder, John, Jr.
Dixon, Charles L.	Durbin, Lawrence Patrick	Fellona, Joseph A.
Dixon, George	Durkin, John Harold	Fenton, John
Dixon, Henry Arthur	Durkin, Joseph H.	Ferguson, Jack Gordon
Dodge, Ellsworth R.	Durkin, Robert J.	Ferm, Evan Malcolm
Dodson, William E.	Durnick, Arthur M.	Ferrier, Eugene S.
Doherty, Earl	Dushuttle, Louis E.	Fettinger, George, Jr.
Doherty, Patrick J.	Dwyer, John Joseph	Fick, Edward F.
Dolan, Joseph L.	Dyer, Barksell	Fickett, George E.
Dolan, George Lester	Dzilsky, Geo. William	Fiel, Louis A.
Domach, Stephen Edward		Field, Donald E.
Dominiak, Chester Jos.	Eaione, Carmine Joseph	Field, Ralph
Donaghue, Clement R.	Eason, Andrew L.	Fields, Cecil
Donahue, Edward P.	Eason, Clarence J.	Files, Charles J. F.
Donnelly, James P.	Eberhardt, Louis Charles	Filipski, Stanley F.
Donnelly, James William	Eckler, Hayland R.	Finan, Russell John
Donnelly, Joseph	Eddinger, Vernon C.	Finch, Jos. L.
Donnelly, Thomas F.	Edmondson, John O.	Fine, Joseph
Donnelly, Bernard C.	Edwards, Hubert Foster	Finley, John A.
Donner, Dee Arthur	Eilers, Charles F.	Finley, Royden Manfold
Donnie, Louis D.	Eleria, Pedro	Finn, John Henry
Donohue, Joseph	Elkind, Paul David	Finnegan, Arthur R.
Donovan, Florence A.	Elliott, Hubert J.	Finnerty, William G.
Doody, George A.	Ellis, Carlton	Firman, Joseph J.
Dorio, Dominick A.	Elward, Leroy John	Firth, Geo. W.
Doudna, Francis M.	Engel, Albert	Fischer, George Adam
Dougherty, Francis D.	Engel, William Frederick	Fisher, Frank B.
Dow, William P., Jr.	Engles, Orie Lurvine	Fisher, William Wallace
Dowd, Francis Herbert	Epstein, Jules	Fitzgerald, Arthur R.
Dowler, Thomas	Erb, Albert J.	Fitzgerald, John J.
Downing, James B.	Erickson, Victor Emanuel	Fitzmartin, Raymond
Doyle, Andrew James	Ericson, Ernest C.	Flaherty, Thomas H.
Doyle, Foster G.	Ertel, Mike A.	Flanagan, Robert

Roster of Crew—Continued

Fleenor, William H.	Gagon, Chauncey A.	Goldberg, Max
Fleming, Alphas J.	Gago, Tudor	Goldsmith, Joseph
Fleming, Roy Arthur	Gallagher, Neil	Gonzalez, Feliciano
Fleming, Thomas	Gallant, Charles J.	Good, Fred. I.
Fliegel, Christian F.	Gallaspie, Hubert E.	Goodnetter, Geo. J.
Flowers, Frank	Gallent, Clifton N.	Goodrich, Dalton E.
Flynn, Daniel C.	Gallo, Jack	Goodstein, Maurice
Flynn, Martin J.	Gammill, Wendell Brooks	Goodwin, Starlin F.
Fochs, Herbert N.	Gapinski, Frank V.	Goolazian, Masrob
Foden, Joseph James	Garball, Arthur	Gordinier, William W.
Fogle, Eddie	Garner, Hubert M.	Gordon, David
Foisett, Charles W.	Garner, Arthur L.	Gordon, Nelson
Foley, Daniel E.	Garner, Clarence Eugene	Gosline, Fred S.
Foley, Thomas J.	Garrison, Melvin	Goss, Ora Martin
Forbes, Daniel G.	Garver, Floyd	Gottlies, Harry
Forsythe, Ray M.	Gash, Lawrence W.	Goudreault, William L.
Fortney, Myrle H.	Catcho, Dalmacio	Gozzetta, John
Foster, William	Gatling, Harry N.	Grabowski, John T.
Fox, David E.	Gaucher, Eugene Alfred	Grady, George J.
Fox, Albert Nathal	Gaunt, Henry E.	Grady, William F.
Fox, William John	Gavin, Thomas James	Graham, Thomas James
Foy, Robert Oliver	Gay, William M.	Graham, William E.
Francia, Primo	Gaylo, Benedict J.	Grant, James Albert
Francisco, Elery D.	Gemmel, Adam	Gray, Richard
Franklin, Robert E. L.	Gentile, Philip	Greene, Victor F.
Franz, Gus.	Gentry, Jack Adams	Greenstein, Sally
Franzen, Antone F.	Gentzsh, Charles T.	Gregory, Edward
Fraser, John H.	George, Albert	Grey, Willmot H.
Fream, Chester Baldwin	George, Joseph Salvatore	Gries, Carl
Freeman, Geo. Arthur	George, Leonard G.	Griffin, James
French, Henry Feather	George, Leroy Delphin	Griffith, Freddie T.
French, James F.	Gerard, Paul George	Griffith, Geo. Morgan
Fresen, Joel B.	Giangrandi, Giralamo	Griffiths, Geo. E.
Freund, Philip P.	Giardina, Giuseppe	Grimes, Lawrence D.
Freyburger, Roy L.	Gibbons, Myles	Grondine, Raoul J.
Frick, Fred.	Gibney, Patrick Christ.	Grossett, David, Jr.
Friday, Attyl Travis	Gilbert Davis L.	Group, Frank J.
Friedhand, Jacob	Gill, John Phillip	Groves, William M.
Frison, Joseph	Gillenwater, Joel R.	Gruber, Eugene Charles
Fritz, Geo. Wash.	Gilliece, Leo J.	Gruen, Frank Henry
Froelich, Irving F.	Giminez, Fernando	Gruenwald, Alfred
Frock, Charles R.	Girardi, Angelo	Guidotti, Numa
Frost, Emery Lorenzo	Gish, George B.	Gullickson, Reuben M.
Frost, Percy A.	Glaser, Edward J.	Gunn, John G.
Froula, Otto Frank	Gleason, Michael D.	Gurholt, Carval G.
Fuller, Frank N.	Glenny, Henry T.	Gusky, Jerome
Fuller, William Bernard	Godfrey, Horace Chilton	Guy, Thomas
Furlong, Raymond C.	Godin, Frank	Gwyn, Oliver Berley
Furst, Fred	Goelzer, Samuel	Gwynn, Henry A.
Fuskerud, Albert	Goff, David Oliver	Gwynn, Richard H. D.
	Goggin, William J.	
Gabrenas, Anthony Paul	Goldman, Adolph Arthur	Hackley, Herbert M.
Gabrysewski, John (Gabel)	Goldman, Anton C.	Haire, Homer H.
Gagne, Irving M.	Goldman, Edward	Halbison, Greer B.

Roster of Crew—Continued

Haley, Vincent Francis	Hebensberger, Frank A.	Hines, Joseph A.
Hall, Burl	Hedenburg, Harry C.	Hinterleiter, Rae E.
Hall, Cecil	Heggen, Karl A.	Hirsch, Joseph
Hall, Virgil Maxwell	Heim, Peter	Hirst, Peter
Hall, Walter Lloyd	Hein, Alfred W.	Hiscox, Everett H., Jr.
Halle, James G.	Heindl, Lee J.	Hobbs, Crosby Edwin
Halter, Conrad Geo.	Heironimus, Charles K.	Hobson, Brook Henry
Hamilton, Thomas D.	Helcamp, Will	Hochstein, Samuel
Hamlin, Gilbert	Heligensten, Henry G.	Hodges, James Clark
Hammen, Roy Merrill	Hendernon, Raymond	Hodges, Otis Elbert
Hamor, James E.	Henderson, Aquilla R.	Hodrus, Walter J.
Hand, Wendell G.	Henderson, Charles Porter	Hoffman, Archie
Hankinson, Louis A.	Henderson, John D.	Hoffman, James L.
Hanlon, Edward P.	Henderson, John M.	Hogan, Cornelius J.
Hanlon, John Andrew	Henderson, Frank Smith	Hogan, Edward J.
Hanne, Charles W.	Henderson, Robert E.	Hogard, Joseph
Hans, Francis A.	Henderson, William	Hogendobler, Geo. H.
Hansen, Charles T.	Hendren, Millard F.	Holcombe, Howard A.
Hanson, Henry	Hendrickson, Alfred Wm.	Hollings, Grover C.
Hanvey, Louis O.	Hendrickson, Gilbert C.	Hollins, Roderick Esmond
Hardiman, John J.	Hendrix, Thomas W.	Holman, Albert Newton
Hargreave, Roy Wm.	Henkel, Joseph G.	Holmes, Stephen, Jr.
Harnisch, Le Roy L.	Hennessy, Gerald	Holtzman, Max
Harper, William L.	Hennessy, Joseph F.	Homrich Leslie A.
Harris, Archibald J.	Hennessy, Lawrence E.	Honer, Frank Joseph
Harris, Elbert Clifton	Henry, Alfred D.	Honeycutt, William T.
Harris, Floyd R.	Henry, Francis S.	Hood, Aubrey Ray
Harris, Glenn F.	Henry, Frank S., Jr.	Hock, Rufus Hermon
Harris, John J.	Henry, James Richard	Hooper, Moreau
Harris, Philip	Henze, Herbert Hugo	Hoose, Fred W.
Harrison, Arthur J.	Herbert, Jasper	Hopkins, Karl H.
Harrison, Charles H.	Herman, Leon	Hopkins, Wilbur F.
Harrison, John C.	Hermann, John	Horan, Frank J.
Harrison, Lloyd Elkins	Herne, Howard	Horn, Charles A.
Hart, Rexford E.	Herrman, Sidney	Horner, Wright Blaine
Hartigan, William R.	Heroy, James H.	Horowitz, Sam Jacob
Hartsock, Ernest H.	Herring, Frank J.	Horrigan, William A.
Harvey, Arthur	Heuskin, Emil F.	Horter, William F.
Harwood, Alvin	Herzog, William E.	Horton, Riley
Hasbrouck, Melvin B.	Hess, Edward Walter	Horwitz, Abraham
Haske, Frederick B.	Hesse, Frederick W.	Hoseth, Einar A.
Haskins, Francis J.	Hession, Edward M.	Houlihan, Eugene F.
Hass, Joseph Jacob	Heuisler, Joseph S.	House, Clinton
Hasse, Julius	Heyl, Howard V.	Hovde, Theodore P.
Hassmann, Joseph C.	Heys, Thomas A.	Howard, Leander Ray
Hastings Jerome L.	Higginbotham, Geo.	Howe, Geo. E.
Hatch, Walter Coit	Higgins, Arthur J.	Howe, Joshua B.
Hauenstein, Lawrence C.	Higgins, Edwin E.	Howell, Perry S.
Haughey, William	Higgins, Fred Monroe	Howery, Charlie Lee
Havers, Geo. Mathew	Hill, Harvey W.	Hubert, Frank P.
Hawkacki, John A.	Hill, Homer L.	Hubert, Ralph S.
Hay, Lorin D.	Hilton, Cecil	Huckaly, Grady K.
Haynes, Joseph	Hilz, Frank L.	Hudack, Joseph M.
Head, Hovie	Hinds, Henry Carl	Hudgins, Jefferson A.

Roster of Crew—Continued

Hudson, Charles J.	Jennings, Daniel O.	Karp, Nathan
Hudson, James A.	Jennings, Harry C.	Kastenhuber, William G.
Hudson, Willie A.	Jensen, Edward P.	Katz, Benjamin
Hudspeth, Robert E.	Jensen, Elmer	Katz, Harry
Huecker, Lawrence A.	Jensen, Leo Daniel	Kaufman, Isidor
Huffaker, R. M.	Jeremias, Julius E.	Kaufman, Joseph
Huffstetler, Joseph H.	Jizejian, Joseph	Kay, John
Hughes, Arthur G.	Johnson, Alex	Keane, Joseph D.
Hughes, Maurice L.	Johnson, Alfred M.	Kearney, Edward C.
Huisheere, Oliver J.	Johnson, Aubrey Allison	Keenan, Grover Evert
Hulmes, John E.	Johnson, Charlie	Kehoe, Bernard J.
Huneke, Herbert C.	Johnson, Clarence J.	Keleher, Joseph J.
Hunt, Jacob O.	Johnson, Gus	Kelleher, Richard D.
Hunter, Isaac Roy	Johnson, Hallie McK.	Keller, Frank Joseph
Hunter, Leon Brann	Johnson, Howard Hall	Keller, William G.
Huntsinger, Archie S.	Johnson, Hillary N.	Kelly, Chester A.
Hurley, David W.	Johnson, John Richard	Kelly, David A.
Hurt, Albert C.	Johnson, Norman E.	Kelly, Philip Joseph
Hussey, Gilbert F.	Johnson, Oscar N.	Kelly, William
Hutts, John Edward	Johnson, William M.	Kelly, William R.
Hylas, Michael J.	Johnson, Roy	Kendrick, William H.
Iacono, Joseph A.	Johnson, Troy W.	Kenemer, Henry Clay
Ignatz, William	Johnson, Verne L.	Kenemer, Thomas W.
Igo, James T.	Johnson, William A.	Kenley, William M.
Iles, Edward Albert	Johnson, William H.	Kennedy, Samuel Jos.
Imbriano, Edward	Johnston, Arthur H.	Kennedy, Walter H.
Irwin, Shuter	Jolly, Raymond I.	Kennedy, Walter Joseph
Ison, Charlie F.	Jones, Bailey F.	Kenney, Samuel F.
Iverson, Marcus P.	Jones, Charlie	Kennick, Martin John
Iverson, Walter I.	Jones, Fred Ernest, Jr.	Kenny, John Eugene
Ix, John Peter	Jones, Henry William	Kenyon, Elmert Plant
Ivy, John Wallace	Jones, James	Kerns, Howell F.
Jablowski, Felix	Jones, James W.	Kershaw, Rolston J.
Jackson, Asher Hardy	Jones, John	Kessler, Samuel
Jackson, Broadrus A.	Jones, Paul	Kessler, Julius
Jacob, Wilbert Ovila	Jones, William D.	Ketchum, Walter S.
Jacolbe, Bernard Joseph	Jordan, Matthias A.	Ketron, Hubert William
Jacobs, Alphonse J.	Jordon, George	Kettlehut, Dellmer E.
Jacobs, Horace	Jordon, Richard D.	Kibble, Sidney E.
Jacobs, Sam	Joseph, William F. L.	Kientzle, Emmett Jos.
Jacobson, Merrill	Josephs, David	Kiernan, Patrick
Jacoby, Frank	Juby, William S.	Kight, Fred
Jacoby, Robert E. H.	Juhnke, Walter A.	Kilburn, Leonard
Jager, Julius, Jr.	Junior, Marshall A.	Kilroy, Bernard
Jahnson, James	Jwanicki, Felix	King, Chas. H.
James, Edward E.	Kaiser, Irwin Charles	King, Ivan
James, John Watter	Kalsch, Frank	King, John A.
Jamesson, James Patrick	Kane, Charles J.	King, Michael J.
Jannetta, Anton Victor	Kane, Edward James	King, Samuel
Javier, Conrado	Kane, Philip J.	Kingsley, Paul Grant
Jeffs, Adelbert	Kantufsky, Chester	Kinnison, Floyd Webb
Jenkins, Elwin W.	Kaplan, Charles I.	Kirk, Thomas F.
	Kaplan, Jacob A.	Kirnan, Frank A.
		Kitchin, Harvey Lee

Roster of Crew—Continued

Kleinbub, Frank G.
 Kleinkurt, Albert
 Klerinsky, Maurice
 Klinger, Elmer
 Klinner, William H.
 Kluge, James Edward
 Knott, William Michael
 Knowlen, Oscar T.
 Knowles, Wilbur C.
 Kohke, Henry Francis
 Kohl, Fred Jacob
 Koiner, Edward L.
 Kopielski, Ben
 Kosluski, Louis A.
 Kovach, Albert
 Kozenesky, Joseph
 Kral, Frank
 Kramer, Peter E.
 Krasnipol, Louis
 Kratky, Joseph
 Krawczewski, Nicholas
 Kreyer, Louis F.
 Krumbach, Carl William
 Kruse, Arthur W.
 Krusinski, Roman
 Kucera, Wesley
 Kuebler, Harold
 Kurtz, George Stanley
 Kurzawa, Anthony M.
 Kutz, Samuel E.
 Kyle, Clarence B.
 Kytola, Waino K.

Labati, John
 La Boissiere, Frank J.
 Ladd, Thomas N.
 Lafferty, Cecil Andrew
 Lagow, Robert E.
 Lagut, Francis J.
 Lampley, Walter Jentry
 Landers, Everett Jay
 Landry, Luzan J.
 Lanewe, Vincent
 Lang, Frank Otto
 Langdon, Robert McDermott
 Lagenbacker, George F.
 Langhouser, Joseph A.
 Larsen, Chris
 Larsen, John Daniel
 Larson, Alfred J.
 Larson, Edward B.
 Larson, Joseph Omar
 Lashkowski, Joseph J.
 Laskauskis, Joseph

Laspe, Edward
 Lassen, Fletcher A.
 Latchis, Emanuel D.
 Latham, Willie Blair
 Lathrop, Roy B.
 Lathrop, Wilbur Peck
 Lattimore, Bennie
 Lauricella, Thomas
 Lavallee, Francis R.
 Lavoie, Joseph A.
 Lavorato, Sam
 Lawhon, Robert H.
 Lawrence, Eli B.
 Lawrence, Harry Stanton
 Lawrence, Homer A.
 Lawson, Harold G.
 Lawson, Lawrence
 Lawson, Oliver B.
 Lax, Abraham
 Leach, Warren W.
 Lee, Glenn G.
 Lee, Christopher Joseph
 Lee, Joseph F.
 Lee, Robert Franklin
 Leedy, Roscoe
 Leeper, Alva Norton
 Lehneis, Christian, Jr.
 Lemay, John
 Lemonde, Edgar
 Lenihan, George J.
 Leonard, Lavy L.
 Lepley, Roy W.
 Lerch, Robert A.
 Lessard, Wilfred A.
 Lesser, George
 Levene, Henry E.
 Levine, Abraham
 Levine, Leo Wolf
 Levitt, William M.
 Levy, Max
 Lewin, Edward
 Lewis, Henry G.
 Lewis, Francis H.
 Lewis, Walter F.
 Liebig, Emlyn Albright
 Lieder, Stephen M.
 Lillibridge, Robert C.
 Limberg, John A.
 Lingren, Carl A.
 Limper, Robert C.
 Lincks, William Clarence
 Lind, Herbert A.
 Lindell, Juel C.
 Linder, Abraham

Linder, Carl G.
 Lindquist, Thomas
 Lindsay, William Muir
 Linn, William J.
 Linsley, Edward H.
 Lippert, Leonard
 Lipscomb, Clifton C.
 Lisdero, Valentine
 Little, John J.
 Lohrer, Walter W.
 Long, George D.
 Long, Jesse William
 Loomis, Floyd
 Loop, Harold W.
 Lord, Claud
 Lord, Leslie M.
 Louis, Lesser H.
 Lovejoy, Herbert W.
 Lowe, Robert McK.
 Lowe, William E.
 Lukaiewicz, John
 Luna, Sanford D.
 Lund, Leo Lloyd
 Lunsford, James V.
 Lusk, Geo. Eugene
 Lustig, Philip
 Lutthaus, Fred
 Luvisch, Abraham
 Lydon, James Keven
 Lynch, John Henry

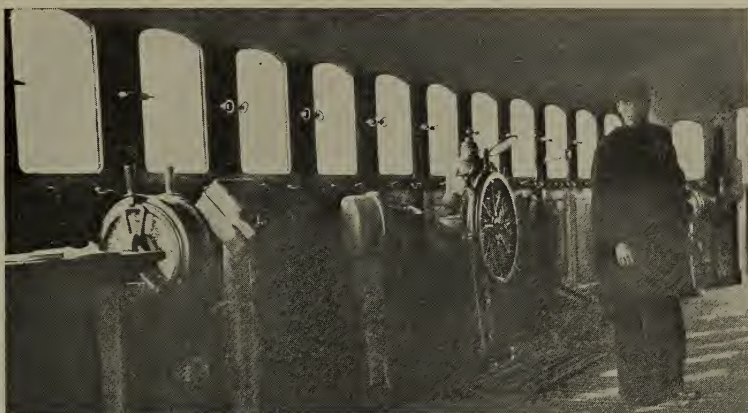
McAdams, William
 McAllister, Daniel J.
 McCabe, James Thomas
 McCandlish, James F.
 McCarthy, Alfred P.
 McCarthy, Charles L.
 McCarthy, Clinton C.
 McCarty, Leon B.
 McCauley, Herbert J.
 McChesney, Roy Clifford
 McClarnon, Augustine
 McClement, Philip H.
 McCollister, Isaac F.
 McCollough, John H.
 McConnell, Joseph J.
 McCorkle, Pope
 McDermott, Charles
 McDermott, Thomas J.
 McDonald, Thomas F.
 McDonald, John J.
 McDonald, John Jos.
 McDonnell, James J.
 McDow, Cicero

Roster of Crew—Continued

McElhiney, Leslie E.	Mallow, Walter F.	Mercier, Alton Lee
McFarland, Jerry Don	Malo, Arthur	Meridith, Jean Homer
McFarlane, Osmond	Malo, Raymond A.	Merrill, Leslie Jordan
McFee, G. A.	Maloy, John M.	Merrill, William Jesse
McGarry, John C.	Malone, Philip Vincent	Merry, Chauncey C.
McGiboney, Auby	Maloney, Leo Griswold	Metz, Geo. Burt
McGilvray, Duncan D.	Maloney, Martin Joseph	Meyers, Clyde F.
McGinn, Geo. Clyde	Manda, Charles E.	Meyers, William A.
McGovern, John E. J.	Mangold, Julius C.	Mezzel, Johnnie Mitchell
McGray, Donald	Mann, Nelson L.	Michalski, Charles
McGregor, John Murdo	Manning, Edward I.	Mickiewicz, William
McIntire, Claud L.	March, Philip Edward	Middleton, Samuel P.
McIntosh, Clarence P.	Marcinkowski, Peter	Miele, Dominick
McKee, John Robert	Marcoux, Florian	Miers, Charles Jack
McKeen, Albert L.	Marforio, Martin	Milburn, Orville
McKendrick, Ruben	Marien, Leo	Miles, Charles Wm.
McKenzie, Albert W.	Marion, Joseph Scott	Miles, Samuel Bascal
McLane, Oscar W.	Marks, John Joseph	Miller, Clarence W.
McLaughlin, Edward J.	Marshall, James, Jr.	Miller, Fred Hugh
McLellan, Floyd E.	Marsland, Alfred L.	Miller, Isadore
McLeod, Clarence P.	Martin, Charlie B.	Miller, John Adam
McMahon, John	Martin, Daniel Thomas	Miller, John Henegar
McMahon, Joseph J.	Martin, Jacob H.	Miller, Martin C.
McManamon, Vern A.	Martin, John F., Jr.	Miller, Halsey W.
McManus, Charles J.	Martin, George E.	Millet, Hylton Berchman
McManus, Harry R.	Martin, Wesley	Milligan, Walter Scott
McMaster, Leo Joseph	Mason, Morris James	Milling, Edward L.
McMullen, Allen D.	Maslow, Samuel	Million, James W.
McNabney, Francis	Massey, Emory L.	Mills, Charles O.
McNair, Malachi	Mathews, Samuel J.	Mills, Fred Jones
McNally, James B.	Mathews, William H.	Mills, Henry A.
McNickles, Tomie	Mathien, George J.	Minton, Forrest D.
McPhail, Carl	Mathies, Arthur J.	Misavage, Lewis
McQuade, Frank J.	Matt, Frank	Mitchell, Finley E.
McRae, Saxton	Matthews, James E.	Mitchell, Joseph Henry
Macauley, Charles C.	Maxim, Earl H.	Mitchell, Otto G.
MacCauley, Thomas J.	Maxwell, Lovell	Mithalovich, John J.
Macavella, Patrick J.	May, Robert M.	Mittlestadt, Arthur Emil
MacDonnell, Julian	Mayer, Nathan	Mix, Joseph S.
Mackey, Anthony	Mayernick, John Corey	Modran, Paul W. R.
MacKenzie, Frederick W.	Mayo, Edward	Moffatt, Laurence
Mackintosh, William H.	Mays, Oscar	Mohr, Herman Peter
Mackney, Loyd Raymond	Mazzadri, Michael Joe	Moisan, Charles A.
Mackritis, George	Mazzeta, Joseph	Molter, Matthew Joseph
Macris, Panagia	Mead, Charles Julian	Molloy, John J.
Magann, Francis X.	Meade, Hansford	Monaghan, Charles J.
Magill, Walter E.	Medick, Arthur Ellsworth	Monk, William
Magner, Patrick E.	Melendres, Leo	Monken, August L.
Magnusen, Lewis W.	Meline, Wallace M.	Molroe, Geo. B.
Magratten, Leo J.	Mellet, Peter	Monson, Arthur E.
Maguire, Harry R.	Melton, Eiley King	Moody, Willey M.
Mahr, Henry John	Meneely, James Knox	Moore, Albert Gus
Malfetano, Sylvia	Menges, William David	Moore, Allen Woodruff
Mallay, Jules L.	Menk, Charles I., Jr.	Moore, Carl B.

Roster of Crew—Continued

Moore, Edward	Nelson, Edward L.	Oldfather, Walter Emmett
Moore, Percy J.	Nelson, Harrison	Olling, Geo. Peter
Moore, Richard Morris	Nelson, James	Olmstead, Harry F.
Moore, Warner R.	Nelson, John Iderman	Olsen, Floyd Bernard
Moorehouse, Henry F.	Nelson, Sven	Olsen, Richard
Moran, Edmund	Nesbitt, Isaac E.	Olsen, Svend A. H.
Moran, John Francis	Nester, Edward M.	Olson, Alfred T.
Moran, Raymond T.	Neuber, Paul Adolph C. G.	Olson, Almer O.
Morgan, William A.	Newhauser, Benjamin F.	O'Meara, Edward J.
Morin, Ephriam Die	Neville, Victor Robert	Ommert, William N.
Morette, James E.	Newcomer, Roy S.	O'Neil, David Patrick
Morris, Lloyd Robert	Nicholas, Eugene Fulton	O'Neill, John Emmett
Morris, Wilson J.	Nickel, Joseph J.	O'Neil, William M.
Morris, Everett P.	Nicolette, David Anthony	Ong, George
Morrisette, John	Nicosia, Sam Joseph	Orchen, Abraham
Morrone, Edward	Nieland, Harry William	Orlando, Alessandro
Mortimore, Oscar Frank	Nies, Mark Bernard	O'Rourke, Arthur
Moses, Harvey Huston	Nipper, Geo. Dewey	Ostrowski, Edward F.
Mosley, Thomas M.	Nixon, John Robert	Ottinger, Emil
Moss, Herman P.	Noble, John Dewey	Ottley, George Burgess
Motherall, William.	Nolan, John Lee	Outhouse, William E.
Motley, Warren T.	Noone, Charles E.	Owens, Michael B.
Mount, Joseph A.	Nonnenmacher, Carl	Ozminski, Adam W.
Mountain, Matthew D.	Noonan, Clement Samuel	
Moyer, Robert O.	Noonan, Edward James	Packenhams, James F.
Mueller, Herbert Geo. Wash.	Norgiel, John J.	Page, Louis
Mullen, Edward J.	Norian, Edward O. H.	Painter, Earl E.
Mullen, Joseph Thomas	Nordlund, Earl Milton	Palmer, Edward L.
Muller, Charles F.	Nordstrum, Reuben Peter	Paines, Ernest R.
Mullins, Cecil Emerson	Northrup, Gerbert L., Jr.	Paith, Arthur H.
Mulrein, William Cole	Novak, Emanuel A.	Pangburn, William H.
Murphy, Daniel Paul	Nowicky, John	Panneton, Andre Alphonse
Murphy, Callahan	Nyboes, John F.	Panter, Clarence J.
Murphy, John J.	Nyiri, John A.	Park, Walter L.
Murphy, Joseph F.		Parker, Floyd Logan
Murphy, Leo Joseph	Oaks, Carlton V. V.	Parks, George F.
Murray, John Joseph	Oberg, Bror W.	Parks, Leo V.
Murray, Thomas A.	Obert, Arthur W.	Parsons, George Henry
Musich, John Leo	O'Brien, Michael	Partisis, Savus
Myers, Dale Powell	Ockenfels, Geo. W.	Parvin, William E.
Myers, John Dolan	O'Connell, Joseph	Pastori, Alfred
Myers, Monroe S.	O'Connell, Wilbert	Pate, Jessie D.
Myers, Meyrl Edward	O'Connell, Wm. E.	Patrick, Andy, Jr.
	O'Connor, Cornelius A.	Patrick, Casimir
Nagee, John Kram	O'Connor, John P.	Patrick, Thomas
Neal, Ivan Samuel	O'Connor, Thomas P.	Patterson, Egbert G.
Neal, Moncellia T.	O'Connor, William	Patton, James Chambers
Nee, James A., Jr.	Oesterreicher, Ben	Paulsen, Antonio C.
Needham, Willie John	Offerman, John Henry	Payne, James Patrick
Neeley, James F.	Offutt, Joseph Paul	Peabody, Roy Louis
Neff, Alfred H.	Ogden, Joseph F., Jr.	Peachey, Gerald A.
Nelson, Anton H.	Ogg, Robert M.	Pearce, Thomas R.
Nelson, Arthur Wilbur	O'Hanlon, James	Peart, Alfred G.
Nelson, Clarence Peter	O'Keefe, John P. J.	Pechonhuk, Frank J.



UPPER—THE HELMSMAN.

CENTER—THE BAND.

LOWER—THE HOME COMING OF THE 27TH DIVISION.

Roster of Crew—Continued

Peck, Hazen P.	Powell, Ernest Lawrence	Rice, George Archibald
Peden, Herman Alexander	Powers, Robert Emmet	Rice, Linville Steward
Pemberton, Norman	Powers, Walter Edward	Rich, William L.
Pennery, Augustus	Prast, John Fred	Richardson, Earl C.
Peniston, Jennings Bryan	Prescott, John W.	Richter, Daniel
Penzick, Moses	Prescott, Karl R.	Ridoux, William N.
Peo, William O.	Pressnall, Ernest J.	Riker, Howard J.
Peppard, John.	Price, Lloyd Lewis	Riley, Frank J.
Peppers, John C.	Price, Walter Peter	Riley, Harold
Perkins, Charles Eugene	Priddy, Henry Earl	Ringrose, Harold LeRoy
Perkins, Percy B.	Primrose, Arthur E.	Risley, William K.
Perrault, Paul J.	Prisk, Clarence W.	Rivers, Troy
Perry, Charles T.	Prochaska, John	Rizzo, Jack J.
Perry, Ernest L.	Proctor, Douglas K.	Rizzolo, Leonard A.
Perry, George I.	Przyeyszewski, Stephen F.	Robbins, Afdent S.
Perry, John	Puppel, Adolf, Jr.	Robbins, Archie V.
Persons, Geo. Kuse	Pulol, Leo Leonard	Roberson, Lige F.
Peschko, Rudolph B.	Purtle, William L.	Roberts, Chester A.
Petersen, Alfred Iver		Rebets, Ernest M.
Petersen, Otto	Quinn, Eugene L.	Roberts, Everett H.
Peterson, Carl R.	Quinn, Thomas J.	Roberts, John Arthur
Peterson, Geo. Widgred	Quint, L. Aldeyge	Robertson, Lewelling
Peterson, Harry W.		Robertson, Thomas A.
Peterson, Sam Sanborn	Rabinowitz, Samuel	Robins, Fred Alfred
Pfeifer, Joseph H.	Raimondi, Michael J.	Robinson, Arthur
Phelps, Peter	Raimey, Charles C.	Robinson, Frank H.
Phillips, David	Rakerstraw, Chester G.	Robinson, George B.
Phillips, Floyd Clinton	Ramirez, Manuel	Robinson, George J.
Phillips, Raymond	Ramsey, Willis Carrol	Robinson, Geo. Lee
Phoenix, Charles Edward	Rand, James Milton	Robinson, John Joseph
Picard, Ernest	Rand, Wendell G.	Robinson, Leslie R.
Picha, Charles Louis	Randolph, Garvin Theodore	Robinson, Morris A.
Pike, Alva E.	Rasmussen, Robert	Robinson, Richard
Pickett, Paul Hutchinson	Ray, James F.	Robinson, Vernon M.
Pielage, Albert H.	Raymond, Jack E.	Robinson, William B.
Pilkington, Peter H.	Reagan, Francis John	Robinson, Elmer A.
Piper, Thomas J.	Reagan, Thomas L.	Robinson, Pierce H.
Pippincott, Paul Thomas	Rebman, Bert.	Roche, William L.
Piquette, Emile J.	Reckinger, Raymond M.	Rockafellor, Chas. Wesley
Pitt, Jasper	Reddington, James A.	Rodgers, William D.
Poad, Joseph Edwin	Redmond, John L.	Rodriguez, William
Poindexter, John W.	Rees, Clarence E.	Roebuck, Andrew
Poitrass, Raymond E.	Reid, Elliott H.	Roeder, Clemens E.
Polhemus, Russell Merritt	Reid, Thomas J.	Roels, Roger A.
Polito, Anthony	Reilly, John Jos.	Roemer, Alben Alois
Pollak, Solomon N.	Reiss, Fred	Rogers, Charles A.
Pollard, Arthur	Renard, Claud R.	Rogers, George J.
Pollard, Charles Arthur	Renda, James	Rogers, Howard H.
Ponder, Ambrus	Renzulli, Pasquale	Rogers, John C.
Pontz, James H.	Reynolds, Frank J., Jr.	Rogers, Thomas Joseph
Pope, Harvey Peter	Reynolds, Gustaus Napolian	Rohr, Walter
Porter, James E.	Reinhart, Clarence Lee	Romas, Gus A.
Poslusny, Albert	Reynders, Floyd	Romero, Apolinar
Potter, Elmer	Rhodes, John	Rommerein, Gilbert

Roster of Crew—Continued

Roschinsky, Martin H.	Scanlon, Thomas F.	Shanley, George J.
Rose, Clayton J.	Scarborough, Jos. M.	Shapiro, Sherman L.
Rose, Frank	Scardopoke, Aramano	Shaull, John J.
Rosen, Moe	Scharding, James A.	Shaw, Harold J.
Rosenburg, David	Schatz, Albert H.	Shawl, Clastus F.
Ross, Charles	Schea, Lawrence H.	Shehan, Joseph J.
Ross, Harold B.	Scheckowitz, Charles	Sheek, John Lafayette
Ross, John McKinley	Scheller, Francis H.	Sheek, Rodney E.
Rostron, Geo. F.	Schiaffino, Prospero	Sheemar, William Francis
Rote, Lawrence	Schiffbauer, Daniel J.	Shedron, Frank H.
Roth, Benjamin	Schimmels, Thomas L.	Sheldon, Van Chas.
Roth, Charles E.	Schindler, Charles E.	Shell, Leonard
Rothwell, Freeland	Schipske, George J.	Shelley, Walter L.
Rowley, James	Schmidt, Edgar Frank	Shelton, Arthur Miller
Rozsa, Evans	Schmidt, William	Shelvey, James Joseph
Rubin, Samuel	Schmitz, John Joseph	Sheridan, Joseph C.
Rubin, William	Schmuker, John I.	Sherman, Thomas D.
Ruble, Bryan	Schnabel, George M.	Sherrill, Harry Collins
Ruck, William	Schneck, Harry	Shetterley, Joseph H.
Rude, Charles	Schneider, Howard O.	Shimon, Harold A.
Rudig, Alfred Jasper	Schoepke, Harvey	Shleeker, Lenard L.
Rudiger, Joseph J.	Schollenberger, Wm. Henry	Shockley, Emerson G.
Ruehl, Fred, Jr.	Schork, Frederick, Jr.	Shook, Roy L.
Ruggiero, Michael A.	Schorling, Henry	Short, William J.
Rusby, Paul	Schorr, Louis	Shortley, William F.
Rush, Augustus Lee	Schrage, Elmer N.	Shuck, William R.
Rushin, Oscar	Schroeder, Edward	Siglin, Howard P.
Russell, James C.	Schuck, George B.	Sigowney, Clyde William
Russo, Albert A.	Schuermann, Ferdinand H.	Silverman, Leo Harry
Russo, John	Schulthers, Joseph J.	Simmons, Vernon Irel
Ryan, Frank	Schultz, Fred	Simon, Elias
Ryan, Jeremiah	Schulz, Emil	Simpson, Elvis Earl
Ryan, John W.	Schulz, William O.	Sims, James Lindsay
Ryan, William L.	Schumacher, Claude D.	Sims, Robert Lloyd
Ryle, Thomas J.	Schwartz, Benjamin	Sinclair, Thomas, Jr.
	Schweikert, Russel C.	Singer, Harold T.
Safstrom, Carl W.	Scott, Clarence Waldie	Sink, John
St. Halaire, Carl R.	Scott, Jake	Sinnett, Arthur
St. John, Hugh Raymond	Scott, Prielson H.	Sinnott, William F.
St. John, William Peter	Seakaes, Carl Peary	Sipchen, William C.
Salk, Emil John	Sears, William F.	Sirovatka, Joseph
Sampson, William B.	Seebeck, Curtis H.	Sisk, Fred M.
Sanders, Charlie C.	Seilman, Herbert W.	Sisk, Isaac Randolph
Sanders, William	Seigmen, Clarence H.	Sittig, Paul Frederick
Sanders, William Frederick	Sellers, Albert T.	Sixsmith, William
Sanderson, Floyd E.	Sellers, Delbart U.	Skipper, Will C.
Sanford, Charles E.	Selig, Sidney	Skonicki, John
Sattelin, Walter Fred	Sengelaub, John F.	Slayton, Lester G.
Saturnin, Eugene Joseph	Senkeisky, Walter F.	Slack, John Edwin
Sauers, Walter F.	Serth, Austin	Slade, Roscoe C.
Saulman, Clifford B.	Senffer, John G.	Slavin, John Francis
Saunders, Albert Martin	Shaffer, Edwin Beverly	Slayton, Lester J.
Saunie, Hugh	Shanahan, Robert	Smale, Oswald P.
Scairrino, Vito	Shand, James Valentine	Small, William A.

Roster of Crew—Continued

Smalley, Harold H.	Stanley, Jess	Sundstrom, John Edward
Smallwood, Melville Robert	Stanley, Jesse S.	Sutherland, Lloyd Elbert
Smith, Alfred Henry	Stanton, Virgil X.	Sutton, William J.
Smith, Charlie C.	Stanton, Charles J.	Swallow, Axel Eddie
Smith, Clarence	Stanwood, Chester W.	Swanson, Gideon N.
Smith, Clifford D.	Stark, Raymond H.	Swaybill, Irving
Smith, Claud B.	Steacy, Rosswell H.	Sweeney, Joseph Aloysius
Smith, Eugene L.	Stedman, Charles Milton	Swenson, Floyd E.
Smith, Harold E.	Stedron, Frank Henry	Swetman, Frederick
Smith, John W.	Steed, Netum H.	Swim, William David
Smith, Elmer	Steele, Arthur W.	Swisher, Clarence M.
Smith, George V.	Steele, Ellsworth C.	
Smith, James	Steel, Charles William	Tack, William
Smith, John B.	Stein, Alex	Tambella, Italo
Smith, Leon E.	Steinman, Reuben	Tansey, John Charles
Smith, Merlin L. D.	Stephens, Arthur E.	Tardelli, Rinaldi A.
Smith, Robert Jackson	Stephens, Drew E.	Tate, Harry
Smith, Robert Hawthorne	Stephens, Ivery Nathaniel	Taylor, Bayard Phelps
Smith, Solomon Merwin	Steratt, Charlie G.	Taylor, Daniel Joseph
Smith, Steward W.	Stern, Samuel	Taylor, Everett
Smith, Truman Eugene	Stewart, Charles N.	Taylor, Garrett Lawson
Smith, Walter E.	Stewart, Paul	Taylor, J. H.
Smithyman, Earl Goodwin	Stewart, Walter H.	Taylor, Kenneth W.
Snyder, Robert W.	Stewart, William Curtis	Taylor, Thomas W.
Sobienski, John E.	Stiles, Jesse	Taylor, William, Jr.
Sockloski, Charles	Stingley, John August	Teague, William H.
Sohl, Edward G.	Stock, Harry E.	Teeter, Eidden John
Solan, Vincent A.	Stocker, Christopher H.	Tefft, George H.
Sollberger, Walter A. L.	Stoerback, Carl C.	Tejral, Fred
Solleridge, Samuel	Stokes, Homer Arden	Teeotsky, Alexander B.
Solomon, Frank Wells	Stone, Thomas C., Jr.	Terwilliger, Raymond G.
Somers, Arthur Lunn	Stranigan, Edgar	Tesariero, Guisappa
Somma, Frank B.	Strecker, Charles Joseph	Tessens, Joseph A.
Sommerfeldt, Alfred Walter	Street, Glenn I.	Tews, Walter Albert
Sorenson, Carl C.	Striver, Lloyd A.	Thagard, Henry F.
Southard, Harold E.	Stromosky, Frank	Theiss, Harry L.
Spear, Philip Bennet	Stroube, Harry A.	Thismann, Arthur Joseph
Spencer, George	Strumpf, Harry	Thisser, Henry
Spencer, Howard G.	Stryker, Harry	Thisteltwhaite, Charles J.
Spencer, Louis C.	Stuart, Clarence O.	Thomas, John William
Spencer, Roy Franklin	Stubblefield, James F.	Thomas, Philip
Spiese, Paul Llewellyn	Stuhre, John W.	Thomas, De Witt Ousler
Spinney, Roy	Stull, Errett D.	Thomas, Gerald M.
Sprowls, Harlon A.	Stults, Claude Marshall	Thomas, John Mayford
Spyker, David Foache	Sullivan, Daniel Aloysius	Thomas, Samuel R.
Staff, Louis Joseph	Sutton, Joseph James	Thompson, Thacker O.
Staffel, Gerald	Sullins, Elsa V.	Thompson, Warren O.
Stafford, Floyd E.	Sullivan, Daniel B.	Thompson, Edward Francis
Stalberger, Edward J.	Sullivan, Frederick J.	Thompson, Ralph O.
Stalder, Edwin Franklin	Sullivan, George Victor	Thoms, Frederick
Stalder, Edgar Francis	Sullivan, Richard N.	Tighe, Morgan Jeremiah
Stamper, Harvey Hugh	Sullivan, Thomas Patrick	Tighe, Thomas, Jr.
Stamper, Kepper	Sullivan, Walter Thomas	Titus, Geo. Francis
Stanhope, Howard Nelson	Sullivan, William D.	Tlover, Samuel

Roster of Crew—Continued

Tollett, Carl H.	Verioni, William	Weimaier, Geo. Edward
Tomaselly, Antonio	Vestal, Harry Arthur	Weisberg, William L.
Tompkins, Alvah	Veissem, Elias	Wells, Charles Elbert
Tonkin, Frank	Vidal, Magin Manuel	Wells, Bruce E.
Toole, Chas.	Vienot, Walter	Wells, Harry F.
Tordeur, Raymond Leon	Viets, Charles McL.	Weimer, Lawrence B.
Torkelson, Arthur G.	Villafior, Lorenzo	Welsh, Clarence Patrick
Towell, James M.	Viliar, Russell J.	Welsh, Earl Sylvester
Towhill, John Patrick	Vogler, Herman Elmer	Wenman, Harry
Trachtenberg, Benjamin	Volk, Charles Aloysius	Wens, John J.
Tracy, James B.	Volk, Kyle R.	Werbesky, John Joseph
Tracy, James Frank	Von Hagan, Elmer H.	Werda, Joseph
Trankle, William		Werle, John William
Trask, Leslie Maurice	Wagner, Arlington R.	West, Clyde Otha
Trice, Clyde	Wagner, Andrew	West, Homer L.
Triffitt, Stephen H.	Wagner, Leo Ernst	Westwood, Charles E.
Tripp, Stanley Everett	Waldron, Lloyd D.	Wetzel, Charles T.
Tripple, Geo. Edmund	Walker, Alvin J.	Whaley, Vilas Henry
Tromblay, Arthur A.	Walker, Charlie	Whately, Daniel B.
Troope, Sterling	Walker, Floyd	White, Evert Calvery
Trope, Frank	Walker, Fred. Wm.	White, Floyd H.
Trout, Chauncey Marion	Walker, Jesse Allen	White, Frank J.
Tronkatos, Wm. B.	Walker, Morris J.	White, Jeffrey
Tucker, Alphonse	Walker, Roy L.	White, John C.
Turner, Bernard E.	Wallace, David A.	White, Junius L.
Turner, Laurant R.	Walley, Lowman Leroy	White, Theodore
Turnpauck, Charles L.	Wallin, Ranson H.	Whitney, Francis H.
Turriff, John Angus	Walesley, Albert H.	Whitney, John Francis
Turzay, Michael	Walpole, James J.	Whittaker, Edwin Ralph
Twist, Edward Hiram	Walsh, Harold	Whittaker, William
Tyndall, Warren H.	Walsh, James F.	Whitten, Julius Perry N.
Tyrell, Floyd	Walsh, Joseph James	Whittington, Luther E.
	Walukas, Albert	Whittle, Henry E.
Ullman, Nathan	Walver, Alphonse J.	Whittup, Herbert Leo
Ulmer, Joseph C.	Warburton, Lawrence H.	Wieber Joseph William
Underwood, Harry Walsh	Ward, Andrew Harrison	Wilborn, William B.
Unger, Carl Henry	Ward, Chester A.	Wilburn, Guy
Urban, Alfred	Warner, Leslie L.	Wilburn, James Clarence
	Warren, Charles Edward	Wiles, Charles Cedric
Vaccaro, Thomas	Washington, George	Wiles, John James
Vanacore, Aniello	Washburn, Clinton I.	Wilhelms, Archie Cortice
Van Aukun, Ross Depue	Waters, William F.	Wilkins, Tom Walker
Vanderbush, William Henry	Watson, Claude	Wilkinson, Elder Zenobia
Van Hoosier, William S.	Watson, Francis W.	Wilkinson, Gladstone C.
Van Romondt, Harold S.	Watson, George James	Willey, Harold Albert
Van Valenburgh, Vernon	Watson, Leroy W.	Williams, Bennie H.
Van Wagoner, Charlie	Watson, Myron John	Williams, Duval George
Vardy, Francis Z.	Watters, William Larkin	Williams, George M.
Varmedor, Carroll	Weaver, Richard Parks	Williams, Harold S.
Varmuh, James Lucius	Weber, Charles F., Jr.	Williams, John Bryant
Varner, Thomas L., Jr.	Weber, John A.	Williams, J. D.
Vaughan, Morgan Wm.	Webster, Robert K.	Williams, James Francis
Vegelann, Harry A.	Weddle, Alexander	Williams, Lewis Edward
Veno, George W.	Wehman, Frederick, Jr.	Williams, Walter Edward

Roster of Crew—Continued

Williamson, Edward	Witzell, Chas. E.	Yeakel, Warren S.
Williamson, Randolph Earl	Woos, Herman G.	Yearwood, Percy A.
Williamson, Reginald J.	Wood, Eugene E.	Yessman, John
Williquette, Clarence P.	Wood, Steven	Yokley, Willard Henderson
Wilson, David R.	Woodward, Charles W.	Young, George E.
Wilson, David Samuel	Woodward, Earl Kenneth	Young, Hiter S.
Wilson, Edward C.	Woodbury, Earl Walter	Young, Percy James
Wilson, Harold J.	Woodcock, William H.	Young, Robert Kenneth
Wilson, Herbert	Woods, Raymond Stanley	Young, David W.
Wilson, John Jacob	Woods, Robert Dale	Youngblood, Harry
Wilson, Marshall E.	Woodson, James	Youssi, John.
Wilson, Stanley Earl	Woodward, Raymond W.	
Wilson, Willie	Woody, James L.	
Wilton, Orville Richard	Woolward, William K.	Zeller, Ernest E.
Winans, Harold Paul	Wordley, Peter J.	Zemantick, Andrew A.
Winans, Raymond Harvey	Worthington, Richard J.	Zero, Thomas F.
Winnick, Paul	Wright, David N.	Ziegler, Jennings Bryan
Winter, Herman	Wright, Jesse Morgan	Ziefeldt, Albert Victor Alfred
Wippert, George	Wright, Joe T.	Zimbrow, Jacob
Wirth, Albert	Wright, Richard A.	Zimmerman, Howard
Wiseman, Frank Allen	Wright, Von Poe	Zimmerman, John
Wiseman, William J., Jr.	Wrightington, William	Zimmerman, Lewis M.
Wittman, George J.	Wynn, Leon Columbus	Zoebelein, William

Roster of Former Crew

Abell, Henry Frank, Jr.	Arent, Stephen T.	Beck, Alvin
Abraham, Leslie	Armstrong, Frank	Beck, Barney
Albert, Alexander	Armstrong, William V.	Bedale, Joseph Hillman
Ackerman, Ralph	Arvidson, Milton E.	Beeler, James Madison
Adams, James A.		Behman, August Scott
Adams, William A.	Bahnsen, Henry A.	Behrend, Harry G.
Adley, Michael Joseph	Balaz, Joseph Patrick	Bell, Thomas
Allen, Warren R.	Barclay, Reginald	Benson, Freeman Leroy
Anderson, Frederick Edw.	Barr, Charles Morris	Bent, James Edward
Anderson, Harry E.	Barr, Eugene Wendil	Bertenshaw, Earl
Andras, Joseph, Jr.	Bartlett, Donald A.	Berry, Peter Joseph
Anthony, Robert W.	Basler, Loren H.	Best, Charles F.
Archer, John Joseph	Bean, Otis E.	Biagiotti, Victor

Roster of Former Crew—Continued

Bielfield, Richard James	Campbell, Theodore J.	Cushman, Clarence Chas.
Bigelow, Ralph Brown	Canady, Jesse James	
Bingley, Ellis S.	Canavan, John Mooney	Dailey, Walter A.
Biondi, Nicholas	Canzler, Eugene	Dalbey, Henry C.
Blackburn, Roy James	Carreiro, Manuel P., Jr.	Dale, George G.
Blaney, Harold J.	Carroll, Martin H.	Dalton, Harry M.
Bledsoe, Roy T.	Carson, Beauregard E.	Dalzell, Lloyd Hunter
Bligh, Alfred Aloysius	Cassavant, Henry B.	Daniell, Wm. Lawrence
Boarman, Francis Herbert	Carter, Harry B.	Danielson, Christian M.
Bogart, Humphrey DeForest	Carter, William F.	Darling, James Jouett
Bohrer, Glenn H.	Cass, Stewart E.	Dauch, Frederick Wm.
Boone, Charlie Earl	Catsiff, Harry I.	Daugherty, Harold J.
Bopp, Harold	Cenedella, Charles M.	Davis, Arthur D.
Bourgeois, Edgar	Chamberlain, Fred A.	Davis, Carter H.
Bowens, Fred	Chambers, Lannie	Davis, Charles O.
Bowles, Thomas V.	Chase, Randolph M.	Davis, Edward C.
Block, Edgar Deane	Chenkin, Saul	Davis, John Philip
Blumfield, Morris	Chick, Charles E.	Dean, James Edward
Bowdoin, Clayton	Christmas, Harold	Debusk, Harvey Clay
Boyce, Richard, Jr.	Christmas, Robert	DeCremy, Loretto
Boyd, Thomas, Jr.	Chrysler, Howard M.	Deering, Charles J.
Boyle, William G.	Clancy, Kenneth Henry	Delaney, Henry J.
Brachatt, August	Clark, Glenn Arnold	Demarah, Richard A.
Branden, Sigurd	Clark, Raymond Vincent	Denison, George
Bradshaw, Claude Henry	Clark, Stewart	Depelio, Joseph
Breen, Lawrence B.	Clevenger, Thomas	Derrick, Clarence L.
Breiman, John	Clifton, Bennie A.	DeSousa, Albert M. R.
Breitschuh, Edward	Cline, Joseph B.	DeSenso, Arthur Joseph
Brewer, Frank F.	Coffman, Carleton C.	Dery, Cyrus Camille
Brinkman, Frederick	Cohan, Henry	Dewdney, Harry
Brinton, Harold	Cohen, Archie	Dilena, Ernest T.
Brooks, Alfred E.	Cole, Francis E.	Divine, Dewey James
Brooks, Valentine C.	Coleman, Grant	Donaghue, Valentine M.
Brown, George R.	Collier, Albert L.	Donnelly, William P.
Brown, Lawrence S.	Combes, Tandy Y.	Dodge, Victor Raymond
Brown, Walter	Conley, Lyndon E.	Doody, William
Brown, William Leroy	Conlon, Hugh M.	Doran, Joseph F.
Browning, Joe D.	Conover, Harry Lester	Doughty, Royal Freemont
Broome, Ronald	Conway, Joseph Edward	Douglas, Otha Wilbur
Brown, Ebna	Cooney, Elwood Patrick	Dowling, John Francis
Brucker, Reuben	Cooper, Richard F.	Drennan, Everett
Bruns, Harry	Cooper, Wendell Earl	Dribben, Charles K.
Buckley, Charles Henry	Corey, Brayton Curtis	Duckett, William Henry
Buford, William H.	Cowley, Joseph P.	Duerr, Bernard A.
Bullington, Preston G.	Cox, Raymond C.	Duffy, Charles Rall
Bulmer, Albert T.	Coyle, James Joseph	Duggan, Raymond Wm.
Burke, Thomas F.	Craycraft, George H.	Dumpprope, William B.
Bushenville, Moses J.	Cross, Emil John	Dunn, Harrison
Byrns, Edward Thorn	Culler, Paul Arthur	Dunphy, Augustine M.
	Cunha, Toney	
Cahn, Harvey Newman	Curfman, Albert J.	Easter, Roswell R.
Calamia, Bertram Plaintiff	Currie, Merton Charles	Eckert, John Burns
Caldwell, Patrick F.	Curry, Thomas James	Eckhardt, George C.
Calhoun, John W.	Curtis, Charles Menzo	Eddy, John Lawson

Roster of Former Crew—Continued

Eddy, George Roberts	Calbreath, Lawrence B.	Hayes, Julian
Elefant, Harvey	Gallaspie, Hubert E.	Hebb, Allen
Ellis, Steve	Gajzik, Joseph Francis	Hecker, Stanley E.
Ells, Marshall Redonte	Gallagher, John Wallen	Hedge, Clayton D.
Evans, Clarence S.	Gallagher, Raymond	Hedlander, Robert L.
Eveland, Orville LeRoy	Gallagher, William Geo.	Heine, Harry
	Gall, Frederick Henry	Helcamp, Will
	Gamble, George F.	Henopp, Adam
Fagan, John James	Gardinier, Ted	Henry, John Leonard
Farrar, Raymon S.	Garland, Joseph H.	Hensley, George C.
Farrell, Albert Grover	Gary, Frederick Samuel	Henzel, William
Faulkner, Henry O.	Geldersma, Dewey	Hermann, William E.
Favicchio, Michelle	Giardina, Giuseppe	Herring, Frank J.
Fawcett, Thomas, Jr.	Giglio, Vincent	Herron, Elmer Ernest
Felsch, John A.	Gilbert, Davis L.	Herzog, William
Benicchia, Mariano	Gillane, Thomas John, Jr.	Heyman, John So.
Fenimore, Michael J.	Gitlitz, Louis	Hicks, Ralph Waldo
Fidel, Paul Bernard	Gochnaur, Walter Alfred	Hill, Frederick C.
Fiddeke, Herbert John	Goings, Howard	Hill, Joseph T.
Field, Donald E.	Goldman, Adolph Arthur	Hill, Harold Joseph
Field, Keith Joy	Good, Earle V.	Hillman, Calman
Fields, Carl T.	Good, Fred I.	Hills, Clifford A.
Finely, Louis Wilford	Gordon, Nelson	Hochstein, Samuel
Firchau, William H.	Gould, Harold T.	Hock, Frank H.
Fitzgerald, Alphonsus	Gordon, Herbert James	Hoening, Louis H., Jr.
Fitzpatrick, Edward A.	Gorman, Kenneth J.	Holland, Monroe M.
Fitzsimmons, John F.	Grady, Patrick L.	Holley, Robert
Fiytok, Frank	Gramling, George F.	Holmes, Harry Jay
Flanagan, Joseph Patrick	Gray, David	Horwitz, Abraham
Fleming, John Joseph	Gregory, Edward	Holt, Archibald G.
Fleming, Everett F.	Gregory, Lawrence Alex.	Hopper, William Edwin
Fletcher, David W.	Gregg, Charles P.	Horn, Thomas A.
Flitton, Alton Lee	Griffin, William L.	Hough, Irving Clermont
Flynn, Daniel C.	Grimshaw, William H.	Houser, William Geo.
Flynn, James Francis	Guadagno, Thomas	Houting, Charles
Fontaine, Emile Roul	Guernsey, Frederick S.	Howard, Charles Joseph
Foster, Clarence L.	Guerrero, Eusebio	Howard, James Francis
Foster, Perry Lee	Guisness, Carl Earl	Howe, Joshua Brewster
Foutch, Jay B.		Hubert, Ralph S.
Freda, Dominick		Hudson, Thomas F.
Freeman, Willard Albert	Hagelstein, Kingston B.	Hughes, John Vincent
Frederick, Arthur	Haire, Homer H.	Hunter, James H.
French, Harry Arthur	Halek, Frank Joseph	Huston, Louis D.
French, William T.	Hall, Ozin	Huston, Sherman C.
Freund, Albert J.	Halliday, Charles W.	Hutchins, Earl Stanley
Freyburger, Roy L.	Hamlin, Paul A.	Hutchinson, John Niel R.
Fricker, Albert B.	Handlowitch, Michael	Hutson, Arthur
Friesch, Steve J.	Hanke, Edward H.	Hyde, Louis H.
Fromme, Arthur Carl	Hannon, Daniel Edward	
Frook, Floyd	Hansen, Charles Theodore	Iacono, Joseph A.
Frost, Frank	Hanson, Henry August	Immediato, Ralph Joseph
Frost, Percy A.	Hardt, Frank J.	Imperial, Joseph T.
Frost, Raymond J.	Harris, David Earl	Israel, Samuel E.
Fuller, Frank N.	Hartigan, William Raymond	Isreal, Roy John

Roster of Former Crew—Continued

Jacobsen, William J.	Kress, Louis Charles	McGuire, Thomas F.
James, Walter A.	Kretz, John Henry	McKinely, Hugh E.
Johansen, John J.	Kulis, Joseph	McKinney, Charles H.
Johnson, Alfred M.	Kwasny, Edward	McManus, Charles B.
Johnson, Henry B.		McManus, Francis
Johnson, Oliver W.	Laird, James	McMillan, David S.
Johnson, Raymond Carl	Laird, William John	McMurdy, Harmon
Jones, Frederick John	Lambert, Joseph E.	McNenny, Francis S.
Jordon, Richard D.	Landis, Oliver Dockery	McNesby, Albert J.
Josephs, David	Langdon, William	McReynolds, Wm. J.
Joyce, Martin Francis	Langhouser, Joseph A.	McWhorter, William D.
	Langley, Frank, Jr.	Mack, Percy F.
	Larson, Albert Andrew	Mackenstadt, Herbert A.
	Larson, Frederick Harry	MacLaren, Norman A.
	Lawrynowicz, John F.	Madore, Arthur
Kadish, Joseph	Lazarus, Thomas	Mahery, Harold A.
Kaiser, Victor L.	Ledamun, Arthur	Mahon, Daniel Francis
Kalinowski, Edward	Lee, Christopher Joseph	Mahoney, James J.
Kandel, Moses	Lemasters, Everett M.	Maley, William, Jr.
Karlewitz, Anthony	Levey, Norman B.	Maloney, Thomas
Keahon, Patrick Henry	Lewin, Edward	Manchester, Gail H.
Kearney, Kenneth John	Lewis, Comer John	Maracek, Stephen J.
Kearns, Thomas J.	Lightell, Frank	Marc Aurele, Donald
Keck, Ralph Frederick	Lind, Curtis P.	Marien, Leo
Kee, Oliver A.	Lindahl, Harry Anderson	Marinello, Accurso
Kelle, Arthur E.	Linn, Otto M.	Martin, Frederick C.
Kellar, Milton Russell	Lippincott, Ralph	Martin, Maxwell M.
Kelly, Michael W.	Lisdero, Valentine	Martin, Thomas
Kelsey, Joseph K.	Littleton, William	Martin, Fred E.
Kennedy, Malcolm E.	Lockwood, Willis A.	Martino, Marco
Kerwin, William D.	Loftin, Orden G.	Martinson, Melvin N.
Kest, Saul	Loftus, John Joseph	Mason, Max Arnold
Keville, John	Loguidice, Thomas	Melfi, Philip
Kientzle, Emmett Jos.	Longobardi, John	Menck, Ray R.
King, Charles Elmer	Loper, Ira B.	Melville, Clarence B.
King, Gerald A.	Lotzgeselle, Justis	Mertz, Charles C.
King, Hillyer Clark	Loughrey, Thomas E.	Meyers, George A.
King, John Rinehart	Lundberg, Gustaf F.	Miller, Earl M.
King, Melvin E.	Lynch, James J.	Miller, Forest E.
Kinney, Harry J.	Lynch, Jeremiah M.	Miller, Hugh Leonard
Kirby, Forest Whitfield	Lyons, John W.	Miller, Ralph Edgar
Kirkland, Roy Henderson	Lyons, William D.	Miller, William W.
Kissinger, William Henry		Millet, Hylton Berchman
Klan, Charles Jacob	McBride, Peter	Millet, Patrick
Kligeld, Jacob	McCabe, Francis Sheldon	Mitchell, George Clayton
Klipp, Carl	McClary, George R.	Monahan, Thomas
Knight, Winfield Westcott	McCormac, Joseph P.	Montgomery, William E.
Knoth, George, Jr.	McCorkle, Pope	Moore, Edward
Kobusch, Walter Henry	McCreight, Roy	Moore, Richard Morris
Koch, Charles	McCurdy, Thomas	Moore, Walter Thomas
Kono, Lewis C.	McElligott, John Joseph	Moran, Eugene, Jr.
Konwiczka, Louis S.	McEvoy, John J.	Morgan, Charles William
Koster, Richard D.	McGee, James V.	Morris, Walter J.
Krahenbuhl, William J.	McGinnes, Eugene W.	Moross, Arthur William
Kral, Charles F.		
Kratochvil, Fred H.		

Roster of Former Crew—Continued

Mullins, Cecil Emerson	Pickard, Gilbert A.	Schrafel, Joseph A.
Mulloy, John W.	Pickell, Ernest James	Scott, Walter John
Murphy, Albion P.	Pilcher, Lloyd W.	Secore, Bartow
Murphy, Daniel Paul	Pitscner, Gustave	Schimpf, Joseph G.
Murphy, William U.	Plank, Lewis	Schlessinger, Edward L.
Murray, Alec. Turner	Polland, Walter	Schorck, Frederick, Jr.
Murray, James P.	Pollock, William	Schmitt, Walter Dewald
Murray, William J.	Pope, Harvey Peter	Schneider, Fred W.
	Porter, Frank L.	Schultz, Anthony
Napierala, Ignatius J.	Post, Leroy R.	Schulz, Herman Charles
Nebel, Peter V.	Pristash, John	Seeber, Fred J.
Nee, James A., Jr.	Provan, Francis H.	Segerstrom, Ragnar Seifert
Neely, John T.	Provencher, Frank	Shaw, Vivian Alonzo
Neff, John White	Pucklitsch, Arnold	Shea, Bernard J.
Nelson, Edward L.	Puderbaugh, Walter A.	Sheehan, James
Nelson, John		Shepherd, Thomas F.
Nelson, Daniel H.	Quinn, Louis Estel	Seidel, Charles
Nett, Alfred		Sheridan, Thomas Bradford
Newsom, Frank Martin	Rabinowitz, Mike	Shymansky, Joseph Peter
Nix, Joseph Patrick	Randall, Arthur L.	Silberstang, Isidore
Nolan, Edward L.	Rayford, James Miller	Sillcox, Wilden B.
North, Reginald W.	Raynor, Clarence K.	Siminski, Stanley
Nutting, William A.	Rebman, Bert	Simmons, Henry G.
	Reckinger, Raymond M.	Simon, Elias
Oakley, Edwin L.	Reynolds, Rufus Arvin	Sims, Robert Lloyd
O'Brien, Alfred E.	Rhynders, Floyd	Sims, Roy Devine
O'Brien, John J.	Richards, Frederick A.	Sister, Tony
O'Connor, John Vincent	Richmond, Ralph W.	Smith, Alfred Ferris
Oldfather, Walter Emmett	Riker, Leonard W.	Smith, Horace Frederick
Ojeska, Albert	Riley, Leo Orvid	Smith, Doane White
Olsen, Elmer O.	Riordan, Thomas Francis	Smith, Ephraim H.
O'Malley, Peter John	Ritchotte, Edgar A.	Smith, James F.
O'Marah, George R.	Rizzolo, Leonard Aloysius	Snyder, Melville A.
Osborne, Silas Peter	Robinson, Robert H.	Snyder, Robert W.
O'Shea, Martin	Roosa, John Moses	Solan, Bernard Joseph
	Rosenberg, David	Solleridge, Samuel
Palmer, John J.	Rude, Charles	Sorge, Gustave, Jr.
Parnin, Eugene E.	Ruger, Benjamin Franklin	Sourbrine, Amos James
Parsons, Edgar Jesse	Russell, Christopher A.	Sousire, Peter,
Partridge, Harry	Ryan, Frank	Southgate, Harold
Paston, John Rae	Ryan, John J.	Spencer, Roy Franklin
Patton, Thomas Thompson	Ryan, William Joseph	Spinnelli, Morto
Persse, George G.		Staker, Christopher Wm.
Peckham, Albert F.	Sacks, Nathan	Stallberger, Edward John
Peden, Herman Alexander	Salerno, Anthony	Stanford, Walter W.
Penzick, Moses	Salk, Emil John	Stanley, Omer Adria
Perkins, Percy B.	Sandell, William H.	Steidl, Hugh Joseph
Perron, Adolphe	Sanders, Jewell Gaskill	Stiles, David McCormack
Perry, Arthur	Sandford, Joseph, Jr.	Stockinger, Christian W.
Peterson, Sam Sanborn	Satcher, Thomas E.	Stokes, Edward J. V., Jr.
Peterson, Alexander B.	Satterfield, Lucian Earl	Stolfors, Martin
Phillips, John Lilburn	Scarborough, Lennie M.	Stone, Edward Hannon
Philippson, Abraham P.	Schoenbeck, William Carl	Stover, Robert A.
Piacine, Joseph Francis		Strecker, Charles Joseph

Roster of Former Crew—Continued

Stromwall, Ernest Harold	Valla, James	Whitehurst, Bertram G.
Stubblefield, Clyde	Vanderbrandt, John	Wiggins, William H., Jr.
Sturtz, Lloyd A.	Vandervelde, Marcel H.	Wilkins, Tom Walker
Sullins, Elza V.	Van Vliet, Roy	Wilkinson, William S.
Sullivan, John Lauren	Varner, Fred	Willers, George A.
Sullivan, Robert E.	Viggiano, Dominick	Williams, Axel L.
Suter, Arnold L.		Williams, David M.
Swanson, Leonard Nels	Waggoner, Robert B.	Williams, James F.
	Wagner, Charles A.	Williams, Onel Oren
Tarches, Benjamin E.	Walker, Ernest Sylvester	Williamson, Francis E.
Tardieu, Ernest James	Walker, Floyd	Williamson, Robert A.
Tassi, William J.	Walker, Fred Wm.	Wilson, Lawrence Edward
Taylor, Charles H.	Walker, Henry C.	Winans, Harold Paul
Teeling, John Francis	Waldrop, Cloney Oren	Winslow, Eugene W.
Terwilliger, Raymond G.	Walsh, Albert A.	Wise, George William
Tessens, Joseph A.	Walsh, Patrick	Wishinsky, Louis
Thelen, Cecil Ray	Walsh, Stephen	Wisker, John G.
Thomas, Kenneth Champion	Walters, Abram B.	Witherspoon, Albert Amber
Thomas, Gerald H.	Warner, John F.	Witte, William Bernard
Thomas, Stanley T.	Weaver, Walter William	Wolfe, Arthur G.
Thomas, William T.	Weber, Adam	Wood, Jesse Eugene
Tighe, Thomas, Jr.	Weed, David S.	Woods, Walter Harry, Jr.
Tobin, Harold	Weigel, Harry Henry	Wright, Lyle H.
Tollison, James Frank	Weisberger, Maurice	
Toole, Alfred Wallace J.	Weiss, Charles Leonard	Zammataro, Frank
Turkus, Andrew George	Werle, John William	Zanitsky, Solomon
Turner, Rommie E.	Wexler, William	Zazzarino, Leo
Twist, Edward Hiram	Whaley, Vilas Henry	Zezulak, John
	Wharton, Jack	Zuccaro, Joseph
Underwood, Goebel	White, Albert G.	

Gun Crew of the U. S. S. Leviathan

GUN No. 1

Gun Captain—Canzler, E., BMlc.; Fanning, J. P., Cox.
Pointer—Lynch, J. J., Sea.; Halek, F. J., Sea.
Trainer—Moorehouse, H. F., Sea.; Motley, B. D., S2c.
Sightsetter—Blackburn, R. J., Sea.; Gray, R., Sea.
Rammerman—McLeod, C. P., Sea.
1st Shellman—Avery, I., Sea.; Lynch, J. J., S2c.
2nd Shellman—Atsma, L. W., Sea.
3rd Shellman—Boss, G. D., Sea.
1st Powderman—Brown, W. L., Sea.
2nd Powderman—Anderson, H. R., Sea.
Voice Tubeman—Grey, R., Sea.
Trayman—Halle, J. G., Sea.

GUN No. 2

Gun Captain—Bradley, P. R., Cox.
Pointer—Wilburn, P. R., Sea.
Trainer—Chisholm, J. A., Sea.
Sightsetter—Loftus E. J., Sea.
Trayman—Guernsey, F. S., Sea.
Rammerman—Stanley, O. A., Sea.
1st Shellman—DeBusk, H. C., Sea.
2nd Shellman—Bazin, A., Sea.
3rd Shellman—Croushorn, G. D., Sea.
1st Powderman—Hutchins, C. E., Sea.
2nd Powderman—Boyce, R., Sea.
Voice Tubeman—Seaquist, C. F., Sea.

GUN No. 3

Gun Captain—Biagotti, V. E., BM2c.
Pointer—Brandon, L. A., Sea.; Rizzolo, L. A., Sea.
Trainer—Meyers, W. A., Sea.
Sightsetter—Strecker, C. J., Sea.
Trayman—Cooper, W. C., Sea.
Rammerman—Engle, W. F., Sea.
1st Shellman—Carter, H. B., Sea.
2nd Shellman—Dietrick, W. H., Sea.
3rd Shellman—Higgenbotham, G., Sea.
1st Powderman—Dilena, E. F., Sea.
2nd Powderman—Littleton, W., Sea.
3rd Powderman—Goings, H., Sea.
Voice Tubeman—Bledsoe, R. T., Sea.; Carter, J. B., Sea.

GUN No. 4

Gun Captain—Clark, J. F., Cox.
Pointer—Meyers, G. A., Sea.; Dwyer, J. J., Sea.
Trainer—King, C. E., Sea.
Sightsetter—Boyd, T., Sea.
Trayman—Davis, J. J., Sea.
Rammerman—Kretz, J., Sea.
1st Shellman—Fitzgerald, A. R., Sea.
2nd Shellman—Benford, W. F., Sea.
3rd Shellman—Flemming, A. J., Sea.
1st Powderman—Barefield, T. K., Sea.
2nd Powderman—Feeney, J. F., Sea.
Voice Tubeman—Snyder, R. W., Sea.

GUN No. 5

Gun Captain—Canfield, W. J., BMlc.
Pointer—Gagnon, C. A., Sea.; Blackwood, L. E., Sea.
Trainer—Hennesey, J. F., Sea.
Sightsetter—Sturtevant, J. F., Sea.
Trayman—Nutting, W. A., Sea.
Rammerman—Marcoux, D., Sea.
1st Shellman—Keahon, P. H., Sea.
2nd Shellman—Cox, R. G., Sea.; Dobson, W. E., S2c.
1st Powderman—Brown, H. S., Sea.
2nd Powderman—Dailey, B. J., Sea.; Murray, G., Sea.
3rd Powderman—Hendrix, T., Sea.
Voice Tubeman—Witherspoon, A. A., Sea.

GUN No. 6

Gun Captain—Abell, H. F., Cox.
Pointer—Kirkland, R. H., Sea.
Trainer—McClary, G. R., Sea.
Sightsetter—Magann, F. X., Sea.
Trayman—Garner, C. E., Sea.
Rammerman—Wehman, F., Sea.
1st Shellman—Gordon, H. J., Sea.
2nd Shellman—Klipp, C., Sea.
1st Powderman—Duckett, H. W., Sea.
2nd Powderman—Cope, T. W., Sea.
3rd Powderman—Bingley, E. S., Sea.
Voice Tubeman—Traccey, P. L., Sea.

T H E U. S. S. L E V I A T H A N

Gun Crew of the U. S. S. Leviathan—Continued

6-INCH GUN No. 7

Gun Captain—Esser, C. A., Cox.
 Pointer—Thomas, W. T., Sea.
 Trainer—Cameron, W. G., Sea.
 Sightsetter—McNenny, F. S., Sea.
 Trayman—Dyer, B., Sea.
 Rammerman—Stockinger, C. W., Sea.
 1st Shellman—Howe, J. B., Sea.
 2nd Shellman—Duschuttle, L. E., Sea.
 3rd Shellman—Polland, W. Sea.
 1st Powderman—Crapps, C., Sea.
 2nd Powderman—Landis, O. D., Sea.;
 Cavey, H., Sea.
 3rd Powderman—Howery, C. L., Sea.;
 Stevens, W. B., Sea.
 Voice Tubeman—Ashley, J., Sea.;
 Abells, W. R., Sea.

6-INCH GUN No. 8

Gun Captain—Chapman, A., BM1c.;
 Wherry, J. B., Cox.
 Pointer—Olsen, E. A., Cox.
 Trainer—Whitehurst, B. G., BM2c.
 Sightsetter—LaValle, F. R., Cox.
 Trayman—Urban, A., Cox.
 Rammerman—Durkin, R. J., Sea.
 1st Shellman—Stokes, E. J. J. V., S2c.;
 Stanford, W. W., Sea.
 2nd Shellman—Simmons, H. G., Sea.
 1st Powderman—Martin, W., Sea.
 2nd Powderman—Kelley, W., Sea.
 3rd Shellman—Borrello, L. R., Sea.
 Voice Tubeman—Winslow, E. W., Sea.

1-POUNDER GUN No. 1

Bahnsen, H. A.....Sea.
 Primrose, A. H.....Sea.
 Fellona, J. A.....S2c.
 Hamke, E. H.....Sea.

1-POUNDER GUN No. 2

Ganley, J. B.....Sea.
 Houting, C.....Sea.
 Bachmier, C. G.....Sea.
 Crowley, J. T.....Sea.

"Y" GUN No. 1

Sampson, W. D.....Sea.
 Gillane, T. J.....Sea.
 Bonner, C. A.....Sea.

"Y" GUN No. 2

Herr, J. H.....Sea.
 Fillipski, S. F.....Sea.
 Brownell, H. L.....Sea.

MACHINE GUN No. 1

Finley, R. M.....Sea.
 Prochaska, J.....Sea.
 Bull, F. W.....Sea.
 Gwynn, O.....Sea.

MACHINE GUN No. 2

Manning, E. J.....Sea.
 Boiden, C.....Sea.
 Alton, L. S.....Sea.
 Taylor, C. H.....Sea.

RANGE FINDERS

Duff, G. L.....Cox.
 Roylance, W.....Sea.
 Southgate, H.....Sea.
 Curry, T. J.....Sea.

Comparison of the Fifteen Leading Transports

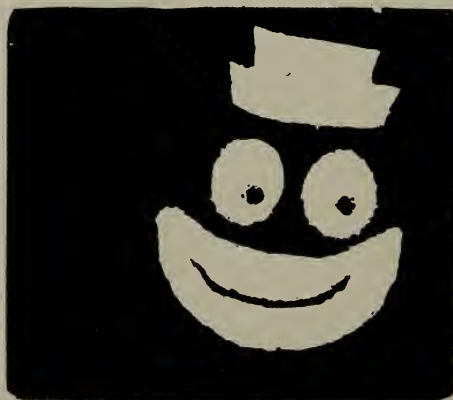
(From *The Transport Ace*, Newspaper printed on board the "Leviathan")

The following comparison shows the number of round trips made, and the number of troops carried to Europe, by the fifteen leading transports up to the time the Armistice was signed, November 11, 1918.

Ship	No. of round trips	Largest No. in one trip	Total troops carried
Leviathan	10	10,860	119,215*
George Washington	9	5,529	46,159
President Grant	8	5,811	44,182
America	9	5,327	39,674
Agamemnon	10	4,917	35,026
Mount Vernon	9	4,763	33,549
Great Northern	10	3,058	27,590
Aeolus	8	3,551	24,327
President Lincoln	5	4,888	23,438
Northern Pacific	10	2,755	21,903
Martha Washington	8	3,055	21,900
Covington	6	4,133	21,754
Princess Matoika	6	3,865	21,163
Huron	8	2,917	20,771
Pocahontas	9	2,920	20,474

* The total of 119,215 for the *Leviathan* includes Naval Supernumeraries and crew carried on the first ten Eastbound trips. The present voyage makes the 14th round trip for this vessel.

The greatest number of persons carried by the *Leviathan* was on our sixteenth westbound trip when we had on board (including Naval Crew), a total of 14,300 persons.



Daily Routine in Port

A. M.

- 4:00 Call ship's cooks of the watch.
- 4:30 Fires started in running steamer.
- 4:45 Call masters-at-arms, boatswain's mates, buglers and hammock stowers.
- 5:00 Reveille. Call all hands, pipe "up hammocks," serve out coffee; light the smoking lamp.
- 5:15 Haul over hammock cloths and stop them down. Master-at-arms report decks clear of hammocks.
- 5:20 Pipe sweepers. Sweep down thoroughly before decks are wet.
- 5:30 Turn to. Out smoking lamp. Execute morning orders. Stow away ditty boxes; clear lower decks. Five minutes before sunrise, station men for turning off anchor, boom and gangway lights. Scrub clothes.
- 6:00 Knock off scrubbing clothes; trice up lines; hoise ashes.
- 6:45 Take off gun covers and hatch hoods, unless the weather is foul. Hammock stowers haul back hammock clothes.
- 7:00 Up all hammocks.
- 7:15 Mess gear. Light smoking lamp. Publish uniform of the day.
- 8:00 Colors.
- 8:15 Turn to; out smoking lamp.
- 8:30 Sick call.
- 8:45 Retreat from bright work. Sweep down. Stow away all wash deck gear and all ditty boxes. Clear up the deck for quarters.
- 9:10 Officers' Call. Divisions fall in for muster.
- 9:15 Quarters for muster and inspection. Physical drill followed by the drill prescribed.
- 11:30 Retreat from drill. Pipe down scrubbed clothes, if dry. Sweep down.
- M. Light smoking lamp. Mast for reports and requests.
- 12:00 Dinner.

P. M.

- 12:30 Band call; band concert till 1:00.
- 1:00 Turn to. Out smoking lamp. Pipe sweepers. Pipe down aired bedding, if up. Pipe down wash clothes, if dry.
- 1:30 Drill call.
- 2:30 Retreat from drill. Turn to.
- 4:00 Knock off work. Pipe down clothes, if up. Sweep down. Light smoking lamp.
- 5:30 Clear up decks. Stow away ditty boxes.
- 5:45 Mess gear.
- 6:00 Supper. Five minutes before sunset call guard of the day and band. Station detail for all lights. Turn on lights at sunset.
- 6:30 Turn to. Pipe sweepers. Wet down after main-decks for scrubbing clothes.
- 7:30 Hammocks. No smoking below the main decks.
- 8:00 Muster the anchor watch. Searchlights and signal drills, if ordered.
- 8:30 Trice up the clothes lines.
- 8:55 First call; out smoking lamp.
- 9:00 Tattoo. Pipe down. Silence. Muster and set first anchor watch.
- 9:05 Taps.

Daily Routine at Sea

A. M.

- 2:00 Relieve wheel and lookouts.
- 3:50 Call the watch section.
- 4:00 Relieve the watch. Muster the watch section and life boat's crew. Light smoking lamp. Call ship's cooks of the watch. Five minutes before sunrise station details at running lights. Turn off at sunrise. Relieve lookouts and station masthead lookouts.
- 5:00 Call idlers and section of the watch sleeping in. Coffee.
- 5:20 Pipe sweepers.
- 5:30 Turn to. Out smoking lamp. Execute morning orders.
- 5:00 Relieve the wheel and lookouts. Trice up clothes lines.
- 6:45 Hammock stowers haul back hammock cloths.
- 7:00 Up all hammocks.
- 7:15 Hammock stowers stop down hammock clothes. Mess Gear. Light smoking lamp.
- 7:30 Breakfast. Shift into the uniform of the day during the meal hour.
- 8:00 Relieve the watch; both sections on deck. Muster watch and life boat's crew.
- 8:15 Turn to. Out smoking lamp. Deck and gun bright work.
- 8:30 Sick call.
- 8:45 Knock off bright work. Sweep down. Stow away ditty boxes and wash deck gear. Take down towel lines. Clear up decks for quarters.
- 9:10 Officers' Call. Divisions fall in for quarters.
- 9:15 Quarters for muster and inspection. Physical drill and drills as prescribed.
- 10:00 Relieve the wheel and masthead.
- 11:30 Retreat from drill. Pipe down washed clothes, if dry. Sweep down.
- 11:45 Mess gear.

M.

12:00 Dinner.

P. M.

- 12:30 Relieve the watch.
- 1:00 Turn to. Pipe sweepers. Out smoking lamp.
- 1:45 Abandon ship drill call.
- 2:00 Relieve the wheel and masthead.
- 2:15 Retreat from drill. Pipe sweepers. Turn to.
- 3:30 Pipe down wash clothes, if up.
- 4:00 Relieve the watch. Muster watch and life boat's crew.
- 4:30 Sweep down. Knock off ship's work. Light smoking lamp. Five minutes before sunset station details at running lights. Turn on running lights with senior ship present. Station deck lookouts. Muster life boat's crew. Inspect life boats.
- 5:30 Clear up decks. Stow away ditty boxes.
- 5:45 Mess gear.
- 6:00 Supper. Relieve the wheel and lookouts.
- 6:30 Turn to. Sweep down. Wet down after raindeck.
- 7:00 Band concert for crew until 8:00.
- 7:30 Hammocks. No smoking below decks.
- 8:00 Call the watch. Relieve the wheel and lookouts. Relieve the watch. Muster watch and life boat's crew. Turn out all but standing lights and lights in officers' quarters and chief petty officers' mess room.
- 9:00 Out smoking lamp. Turn out lights in chief petty officers' mess room.
- 10:00 Relieve the wheel and lookout. Turn out lights in officers' quarters unless an extension has been granted.
- 11:50 Call the watch.
- Midnight. Relieve the watch. Muster the watch and life boat crew.

The U. S. S. Leviathan

The *Leviathan* is 954 feet long, 100 feet beam, and, when leaving New York, draws 41 feet 10 inches of water. Place her on Fifth Avenue and she would spread from 42d Street across 45th Street. Stand her on end alongside the Woolworth Building, and she would overtop the Woolworth Building more than 50 feet. She weighs 69,000 tons; more than twice the displacement of the world's largest dreadnought.

She stows 8,700 tons of coal and carries 5,000 tons of fresh water. If we would be permitted to run her at the speed she is capable of, she would burn between 900 and 1,000 tons of coal a day. When we dock at Hoboken she must have eighteen tug boats to assist her. She can enter New York only on the high water, for the Ambrose Channel is not dredged deeper than 40 feet. She can move at Hoboken only on the slack water, for no amount of tugs could dock her at Hoboken while the tide is running. Before the armistice she carried ten loads of troops to Europe; about 4,500 officers and 100,000 men. Thus she has alone handled one-twentieth of the A. E. F. Twenty *Leviathans* alone could handle all the A. E. F. Alone, the *Leviathan* has placed in Europe more U. S. Troops than Meade commanded at the decisive battle—Gettysburg. ✓

Her Engineering Department requires 12 officers and 950 men. Her Commissary Department requires 7 officers and 350 men. When you have roast beef they have to cut up 40 steers.

During the war, on the eastward voyage, the Commissary Department has fed 10,000 troops in 70 minutes, and at that permitting men to come back for the second.

Even if the East River were deep enough her funnels are six feet too high to go under the East River bridges.

Those on the bridge stand with their eyes 87 feet above water. Against submarines we had eight six-inch guns and a supply of depth charges always manned; but only twice have periscopes appeared, both times in her rear. Both times the destroyers bombed at them well.

T H E U. S. S. L E V I A T H A N

List of Sick and Wounded Carried by Leviathan

The following list shows the number of sick and wounded transported by the *Leviathan* on our return trips from Liverpool and Brest:

Trip		Trip	
1	0	9	271
2	4	10	1,429
3	0	11	2,132
4	0	12	1,251
5	0	13	1,152
6	116	14	1,263
7	105	15	1,091
8	265	16	1,090

Total number carried up to date. . . . 10,169

NOTES

Not only did the *Leviathan* carry a total of 14,300 persons on board this trip (her 16th), 23 more than she has ever carried before, but her trip from Sandy Hook to Brest and return is the fastest she has ever made.

The *Leviathan* cleared Ambrose Channel on May 27th at 6:56 P.M. and arrived June 11, at 3.00 A. M., or in a total elapsed time of only 15 days 8 hours and 4 minutes. Her best previous trip was when she did the same circuit in 15 days 15 hours and 3 minutes, sailing on May 6th and next arriving at Ambrose Lightship on May 22nd.

Previous to this, her two best round trips were those of June and July, 1918, when the pressure of troop movement to France was at its height. These two trips were negotiated in 16 days 0 hours and 23 minutes, and 16 days 12 hours and 12 minutes respectively.

Not only has the *Leviathan* carried in the 15th and 16th trips a total of 28,412 persons against 26,145 for her two best previous trips, but her intervening stays in Hoboken between her last two trips was only 4 days, while the Hoboken layover between her two best former trips was seven days.

Besides this record breaking showing, the boys of the *Leviathan* found enough cash to subscribe \$193,000 to Uncle Sam's Victory Loan while the Navy's next best ship could only put up \$129,000.

The 17th round trip established a new record of 14 days and 21 hours, when she carried 4,000 Army Officers and 3,000 troops.

While under the German flag, the *Vaterland* (*Leviathan*) made only one round trip and a half. She was ready for her return trip August 1, 1914, but was held at Hoboken when the world war broke out, July 30 of that year.

U. S. S. LEVIATHAN

STATISTICS OF NUMBERS CARRIED

Up To and Including
14th Trip

VOYAGE	LEFT	ARRIVED	Days at Sea	Days in Port	PASSENGERS								SHIP'S COMPANY				Total on Board	COMMANDING OFFICER
					Troops	N. C. O.'s	Army Officers	Nurses	Civilians	Misc'l	Naval Superintend- aries	Total Passengers	Naval Officers	Navy Enlisted	Misc'l	Total Navy		
EAST 1 WEST	New York Dec. 15, 1917	Liverpool Dec. 24, 1917	9	50	6839	Included with Troops	277	138	...	...	...	7254	62	1625	...	1687	8941	CAPT. J. W. OMAN
	Liverpool Feb. 12, 1918	New York Feb. 20, 1918	8	12	5	Included with Troops	...	...	...	19	77	101	62	1625	...	1687	1789	
EAST 2 WEST	New York Mar. 4, 1918	Liverpool Mar. 12, 1918	8	29	7695	56	439	...	5	47	100	8342	59	1798	...	1857	10199	CAPT. H. F. BRYAN
	Liverpool Apr. 10, 1918	New York Apr. 17, 1918	7	7	5	...	...	...	...	37	204	246	58	1789	2	1849	2095	
EAST 3 WEST	New York Apr. 24, 1918	Brest Mar. 2, 1918	8	3	8278	97	361	229	13	1	413	9352	65	1986	1	2052	11404	CAPT. H. F. BRYAN
	Brest May 5, 1918	New York May 12, 1918	7	10	14	...	...	...	3	8	44	69	65	1984	2	2051	2120	
EAST 4 WEST	New York May 22, 1918	Brest May 30, 1918	8	2	9944	111	399	99	17	7	736	11313	65	1960	3	2028	13341	CAPT. H. F. BRYAN
	Brest June 1, 1918	New York June 8, 1918	7	7	25	...	...	...	1	7	1	34	64	1972	1	2037	2071	
EAST 5 WEST	New York June 15, 1918	Brest June 22, 1918	7	2	9833	149	395	...	2	21	743	11143	62	1949	2	2013	13156	CAPT. H. F. BRYAN
	Brest June 24, 1918	New York July 1, 1918	7	7	14	...	...	...	31	3	...	48	62	1949	1	2012	2060	
EAST 6 WEST	New York July 8, 1918	Brest July 15, 1918	7	3	9944	138	437	...	8	18	418	10993	63	1932	1	1996	12989	CAPT. H. F. BRYAN
	Brest July 18, 1918	New York July 25, 1918	7	9	183	...	79	...	72	...	383	717	62	1932	1	1995	2712	
EAST 7 WEST	New York Aug. 3, 1918	Brest Aug. 11, 1918	8	2	10305	94	482	...	3	12	518	11414	63	2080	1	2144	13558	CAPT. H. F. BRYAN
	Brest Aug. 13, 1918	New York Aug. 20, 1918	7	11	204	16	321	...	25	8	141	715	64	2079	1	2144	2859	
EAST 8 WEST	New York Aug. 31, 1918	Brest Sept. 7, 1918	7	5	9953	78	407	99	...	5	597	11139	68	2154	1	2223	13362	CAPT. H. F. BRYAN
	Brest Sept. 12, 1918	New York Sept. 19, 1918	7	10	300	25	125	2	99	33	38	622	68	2150	1	2219	2841	
EAST 9 WEST	New York Sept. 29, 1918	Brest Oct. 7, 1918	8	2	8839	34	260	191	2	1	254	9587	64	2157	1	2222	11809	CAPT. W. W. PHELPS
	Brest Oct. 9, 1918	New York Oct. 17, 1918	7	10	260	19	96	2	11	66	49	503	64	2158	1	2223	2726	
EAST 10 WEST	New York Oct. 27, 1918	Liverpool Nov. 3, 1918	7	31	7140	52	367	...	4	1	565	8129	68	2258	1	2327	10456	CAPT. W. W. PHELPS
	Liverpool Dec. 4	Brest Dec. 5	1	3	3631	Included with Troops	78	15	252	23	4846	8870	70	2278	...	2348	11218	
	Brest Dec. 8, 1918	N.Y. Dec. 15, 1918	7	40	...	...	...	...	...	...	...	...	...	...	...	...	...
EAST 11 WEST	New York Jan. 24, 1919	Brest Jan. 31, 1919	7	3	10	...	6	...	19	1037	1	1073	76	2157	8 Nurses	2241	3311	CAPT. W. W. PHELPS
	Brest Feb. 3, 1919	New York Feb. 11, 1919	8	5	9040	130	359	30	20	26	53	9658	76	2157	8 Nurses	2241	11899	
EAST 12 WEST	New York Feb. 16, 1919	Brest Feb. 23, 1919	7	3	7	2	6	...	8	358	158	539	83	1918	8 Nurses	2009	2548	CAPT. W. W. PHELPS
	Brest Feb. 26, 1919	New York Mar. 6, 1919	8	9	9714	133	319	66	23	78	50	10383	84	1960	8 Nurses	2052	12435	
EAST 13 WEST	New York Mar. 15, 1919	Brest Mar. 23, 1919	8	3	2	...	5	...	29	57	4 Officers	97	73	2083	15	2171	2268	CAPT. W. W. PHELPS
	Brest Mar. 26, 1919	New York Apr. 2, 1919	7	5	11441	143	460	28	11	11	9 Officers 3 Enlisted	12106	73	2083	15	2171	14277	
EAST 14 WEST	New York Apr. 7, 1919	Brest Apr. 14, 1919	7	4	3	...	8	...	39	4	...	54	69	2063	16	2148	2202	CAPT. E. H. DURELL
	Brest Apr. 18, 1919	New York Apr. 25, 1918	7	...	11442	172	409	...	43	6	8 Officers	12080	68	2091	18	2177	14257	





WEST
BOOKBINDING
Grantsville, Pa.
MAY - JUNE 1986
We're Quality Bound

